

AMONG THE ŪZARKS



THE LAND
OF



BIG RED APPLES.

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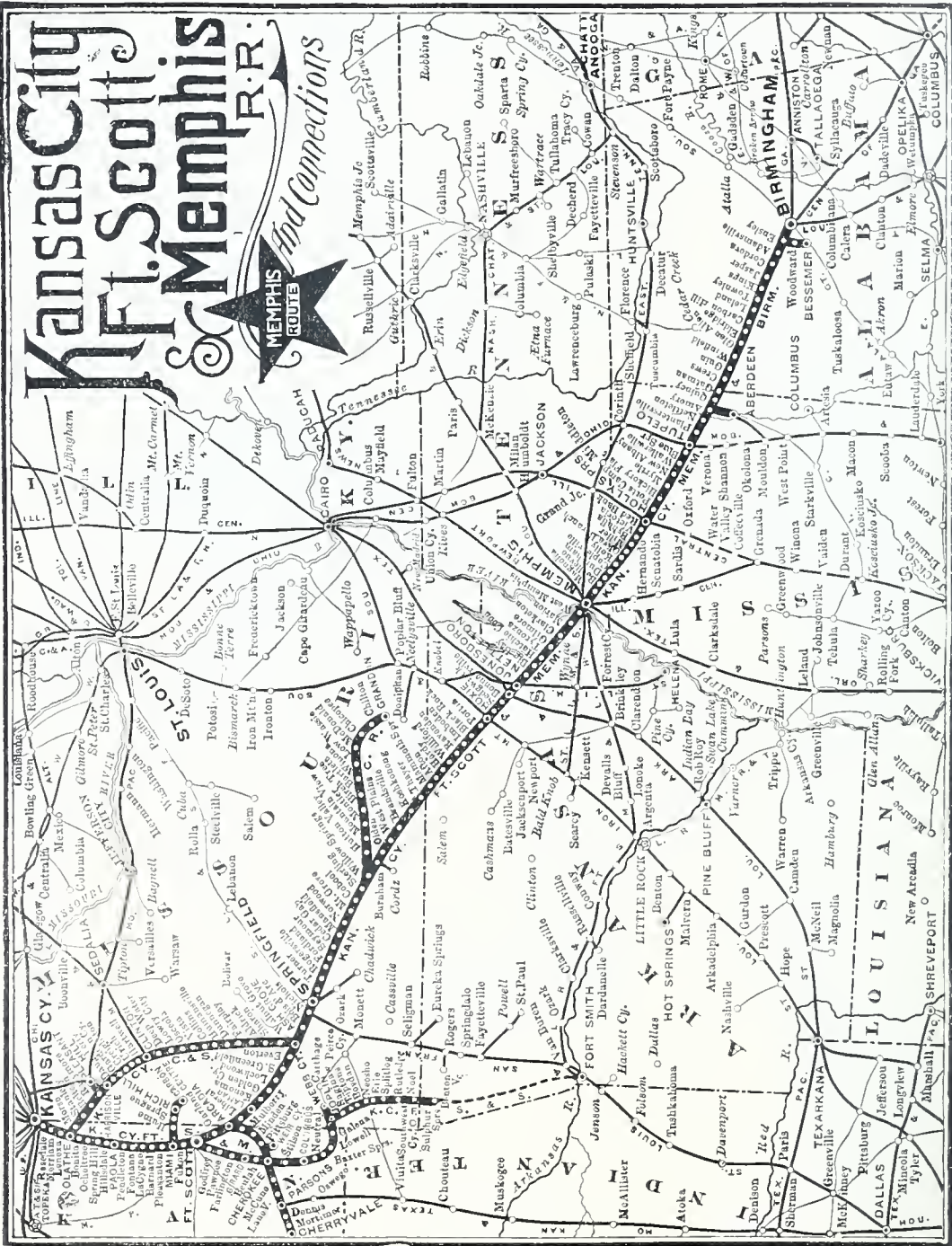


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AMONG THE OZARKS, THE LAND OF "BIG RED APPLES."

LIKE Morning's first light, that gladdens the sight,
So may the best fruits spread over the earth.
And when we shall reach that still fairer land
And round the life-tree in mercy shall stand,
May each pluck its fruit, and nevermore feel
The serpents sharp tooth, once close at his heel.

FRUIT RESOURCES OF SOUTH MISSOURI.

The following excellent paper was read at the meeting of the State Board of Agriculture in Lebanon, December 21st, by D. S. Holman, of Springfield, Missouri, Treasurer of the State Horticultural Society.

MR. PRESIDENT:—By request I offer a short paper on a subject worthy of more time and better preparation than I have been able to give to it.

Missouri, Sir, needs no eulogy from me, nor exaggerated statements from any. Her diversified surface, her soil and its products, tell plainly and truthfully of immense resources, and very many of them. If we were considering them all now, we would find Missouri wonderfully made, possessing in all her parts a wealth of values inexhaustible. God must have looked on Missouri when He said: "It is good, very good." Her minerals, her cereals; her grasses and her fruit present the same fact. She is adapted to agriculture and especially so to horticulture. The fruit resources of Missouri were very slowly developed in the years of the country's settlement. Now it is being done rapidly and satisfactorily. The annual fruit crop, when ripening in all its crimson and golden beauty upon the trees, is very suggestive to the observing traveler, of Missouri's fruit resources. Proof of this fact is also found in packing houses and upon the railroads, where

our fruits are handled and shipped from orchards all over the state, and from the fruit market reports in the south and west where Missouri fruits are largely sold.

Nothing proclaims this fact more beautifully than fruit exhibitions by horticultural or other societies at their meetings. In the last few days, in the city of Nevada, at the Missouri State Horticultural Society's annual meeting, there were, for public inspection spread four very long tables of beautiful fruits, representing the fruit growths of the state most beautifully.

Allow me to refer to the grand show of Missouri fruits in the St. Louis Exposition last fall under the supervision and much labor of the Missouri Horticultural Society. Nothing so convincing could have been said—and no one could have said it so beautifully as did the fruits themselves—that South Missouri lands were fruit lands, and that the capabilities of the whole state are immense.

To determine the true character of Missouri as a fruit producing state, it should be considered by districts. Were an observing stranger to cross the northwestern portion of the state at fruit harvest he would conclude naturally that Missouri produced fine apples, whereas, if he had instead crossed the Ozark mountain at its southeastern slope, he would have called Missouri a peach orchard, and in the mineral belt, where iron predominates, he would find the land for pears and grapes and the whole list of berries or small fruits, all of which can be grown largely and profitably in Missouri, if classified as nature has classified the capabilities or adaptation of altitude, soils, slopes or exposures, etc., and plant accordingly. If we would grow the peach largely for profit, then we may find success in the peach belt covering the hill country of South and South Central Missouri—the Ozarks—especially their southern and southeastern slope. Here is just sand enough in the soil to make both cultivation and success with small fruits easy. Every county in the state will produce fine apples—some better than others however. Larger and heavier on the deep, moist soil. The highest colored and best quality possessing the most saccharine matter are found on lands of best altitude and nearest the sun with no malaria.

I doubt if another section in the whole country can grow so many, and so well, the fruits which succeed in South Missouri. The adaptation to the apple and other fruits is no longer a question in Missouri, but the extent of the fruit resources of Missouri is a problem. Already millions of bushels of Missouri apples are annually grown and there are millions of acres of her best fruit lands unsubdued—in brush, woods, vines, briars, and grass to-day—cheap lands, too.

I have no fruit lands to sell, sir, and no axe to grind when I call attention to the Ozark plateau of many miles in length and the timbered hills on the long slope on both sides of this plateau where small money, large muscle, a good will and an active brain would achieve an annual success, when richer bottom lands, valley or prairie, better for agriculture, would

not, from fogs and frosts, gives crops of fruit so sweet nor so surely. Similar rough lands in other portions of the state, ignored because rough and hilly, will yet be planted to fruit and found the best.

It is but a question of time—a short time—when South Missouri must stand in the front as the fruit section. The result of scientific and practical experiments being made and yet more and more to be made at Columbia, will hasten such results. The faithful work of the Missouri Horticultural Society with auxiliary societies in the counties, will help to solve the problem of South Missouri's fruit resources and help to fulfill the prophecy in a few years just made.

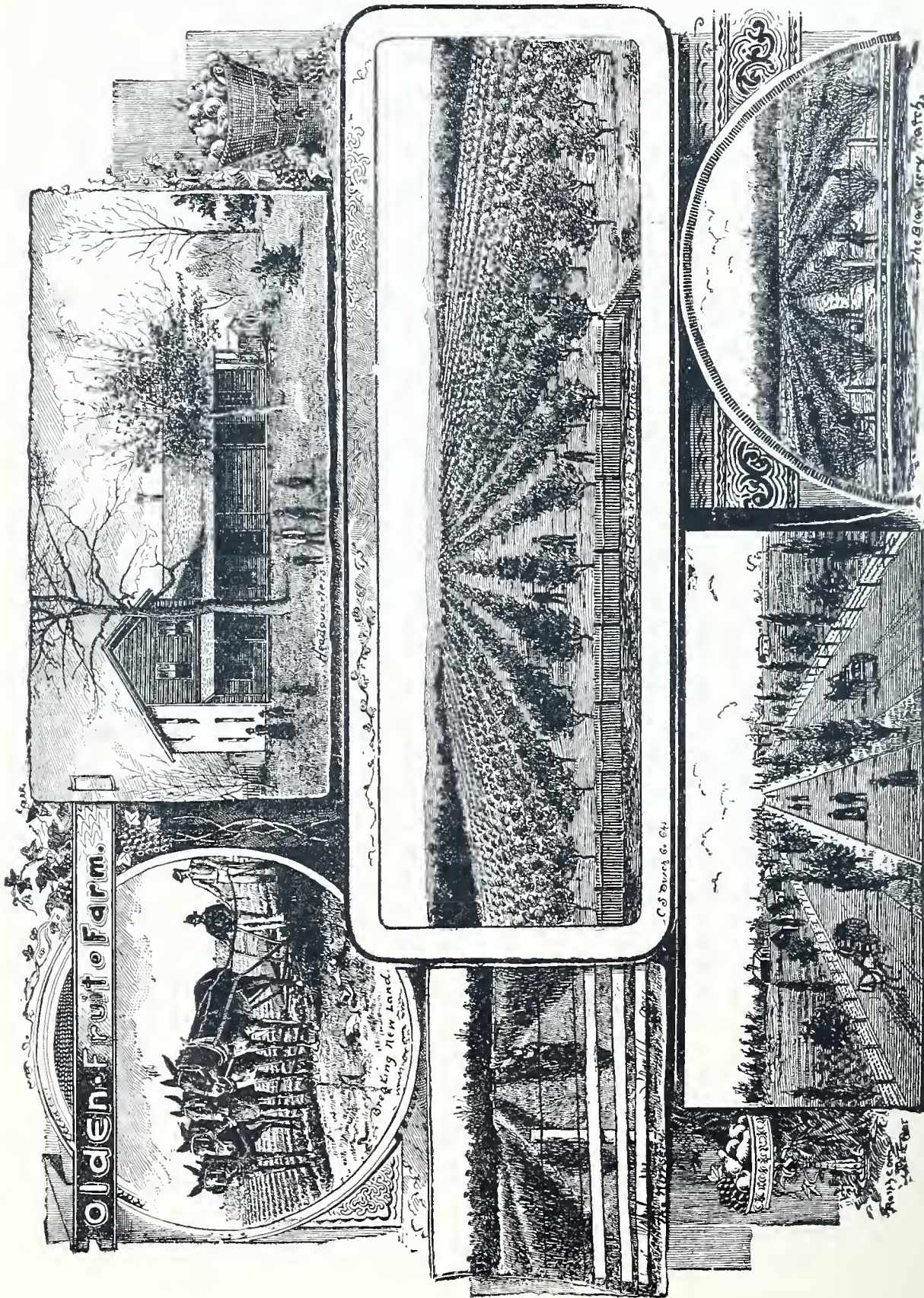
THE FAMOUS OLDEN FRUIT FARM IN HOWELL COUNTY, MISSOURI.

3000 ACRES IN EXTENT.

The Great Farm Opened Up in 1885.

30,000 Boxes of Peaches and 12,000 Crates of Berries
Shipped in 1889.

The Famous Olden Fruit Farm, some 3,000 acres in extent, of which 2,500 acres are in a solid body; mostly within a radius of one mile of the railway station. The farm is owned and operated by the Olden Fruit Company, which is composed of Col. J. C. Evans, of Harlem, Mo; Judge J. K. Cravens, of Kansas City, Mo.; L. A. Goodman, of Westport, Mo.; G. F. Espenlaub and F. Holsinger, of Rosedale, Kan., and W. G. Gano, of Olden, Mo. These gentlemen are all well-known, practical fruit-growers of many years' experience, and all active members of the American Horticultural Society, the Missouri State Horticultural Society, and the Missouri Valley Horticultural Society, Col. Evans is President and Mr. Goodman Secretary of the Missouri State Horticultural Society; Messrs. Espenlaub and Holsinger, respectively, Treasurer and Secretary, and Mr. Gano Ex-President of the Missouri Valley Horticultural Society. A good portion of the farm was purchased in March, 1884, and the farm improvements began the same spring with the planting of 18,000 peach trees. In the spring of 1885 some 3,000 apple trees, 12,000 peach trees and ten acres of berries were planted. In the spring of 1886, ten acres of berries, 3,000 apple and 10,000 peach trees were planted. In 1887, five acres of berries, 1,000 pear, 4,000 apple and 5,000 peach trees were planted. In 1888, five acres of berries, 5,000 apple and 5,000 peach trees were planted, and in the spring of 1889, ten acres of berries, 500 cherry, 1,000 pear and 5,000 apple trees were planted. The total fruit plant of the farm up to March 1st, 1890, covered 700 acres, of which 300 acres were in peach trees, 300 acres in apple trees, and 100 acres in pear, plum and cherry trees, raspberries and blackberries. The fruit shipment of 1889 embraced 30,000 boxes of peaches



and 12,000 crates of berries, nearly all of which were shipped in bulk to Kansas City by fruit cars attached to the night express trains. These shipments represented only the three first years' plant of peach trees and about thirty acres of berries, the balance of the trees and small fruits not being in bearing.

In the selection of fruits for this model farm, great care has been observed to plant only such varieties as years of experience have proven to be best-suited to the transportation, markets, soils and climate involved in the enterprise. Equal care has been taken in the selection of standard fruits of each kind with reference to the time of ripening, so that the entire fruiting season, from the early berries of May to the November picking of apples, should represent deliberate, steady, seasonable gathering and shipping, no one variety crowding upon the season of the others. By this careful method of selection the shipments are made daily with almost mechanical regularity. The berry season at Olden is a long one, and the peach season runs from early June into October. The quality of the Olden fruits is equal to that of any grown on the American continent. They have here the elevation, the warm, southerly slope, the gravelly loams, red clay subsoils, and equable temperature to make perfect fruits, and the apples, peaches and pears grown on this farm and other Howell County orchards have been honored with first prizes at New Orleans, St. Louis, and a dozen other state, national and district fairs and horticultural societies. It was my fortune to frequently inspect and taste the peaches shipped from Olden last year, and for size, color and flavor, I have never seen their superior in the New York, Philadelphia, Baltimore or Chicago markets. The purchase and improvement of this farm by the Olden Fruit Company was a compliment to Howell County and this entire Southern slope of the Ozark range. Col. Evans, Mr. Goodman, and indeed the entire company had long been impressed with a belief that the future great peach region of the United States would be found on this Southern slope, where most and best of the needed elements for successful peach growing were found in largest measure. This, too, is generally entertained by the leading horticulturists of the country, and finds ample justification in the splendid results attained at Olden, and in many new orchards along the south Ozark slope. The peach has no deadly enemies here as in Michigan, Illinois, Jersey, Delaware and the "Eastern Shore," and has never failed in the history of this region. The Olden people are confident enough to continue the extension of their peach orchards as fast as the lands can be well cleared and deeply broken. Large additions have lately been made to the 50,000 peach trees heretofore enumerated, and four years hence the Olden Company will be shipping to Kansas City, Memphis and other cities one hundred thousand boxes of the finest peaches in America. A year later they will be in receipt of \$75,000 net revenue for a single season's fruit crop from this farm. Their total investments, up to date, aggregate \$40,000, nearly one-half of which came back to them from the crop marketed last year.

Correspondence *Missouri and Kansas Farmer*:

SHELBY, POLK CO., NEB., Jan. 28.

Mr. S. Kaufman, Thayer, Mo.:

DEAR SIR:—I have been a subscriber to the *Missouri and Kansas Farmer* for only a short time, but am very much interested in your country and sent a club of five subscribers to that paper. If nothing happens to prevent, I will be down there next fall and several of my neighbors say they will go with me. While waiting for that time to roll around I want to get all the information I can about the country. I think the more I know of a place before I see it the better I can judge of it afterward, so I hope you will not think me bold for asking you a few questions.

Can you raise quinces there? Do the Oxheart and Bigarreau cherries grow and bear well? Do roses and other flowering shrubs thrive there? I understand you have a brick-colored soil in that country, how deep is it and is it harder to work than our prairie soil? Do you have much mud in winter and spring? Are the stones that are on top of the ground suitable for building foundations, etc., and are many of them too large to load on wagons or drag sleds? What per cent of the population is colored? Please answer in the *M. and K. Farmer*, and oblige,

Yours Truly,

JAMES WATTS.

Yes, quinces do splendid in any part of South Missouri. Cherries also do well here, though I do not know whether the varieties you mention would do well or not. Roses, and in fact all varieties of flowers and shrubs are at home in our soil and climate, and many that will not thrive farther north, and especially on the bleak, cold prairies, give excellent results here. I am glad you, or at least your wife is a friend of flowers.

Our subsoil is of a dark red color, and is rich, almost a fertilizer itself, and reaches a depth of 50 feet in some places. None of the soil here is hard to work. We are troubled very little with mud, as the subsoil absorbs the rain very freely. Much of the stone can be used for walling and foundation purposes and there are but few but what can be easily handled by one person. Most of the stones are too small for any use and are not noticed much after the ground has been plowed a few times. We need no stone in this country to build houses and barns, as timber is plenty and pine lumber cheap. There are very few colored people in South Central Missouri. Oregon County has about one dozen—less than is generally seen in any Northern town.

S. KAUFMAN.

W. G. GANO, OF THE OLDEN FRUIT FARM, HOWELL COUNTY, MO.—What a wonderful country we have for fruit culture; no nation possesses such marvelous privileges, no other has made such progress in pomology.

Being situated on the southern slope of the Ozark mountains, we are protected from the severity of the north and northwestern wintry blasts, and by a succession of mountain ranges in Arkansas on the southwest from the hot blighting winds of July and August. Here, we have a district as large as the German Empire, where both soil and climate are congenial to the growth of the peach, where no yellows, that formidable and dreaded disease that baffles and blasts the prospects of the grower of this luscious fruit, ever invades. Where the much dreaded enemies of the fruit tree, the borer or gouger and curculio are seldom found; where nothing hinders the growing of millions of bushels of this blessed God-given fragrant fruit of Paradise; I say where nothing hinders except the supreme laziness of man.

It is a painful fact that peach-growing, by the settlers of this most

avored region, is but a sad mockery, for they know of nothing and plant nothing but seeds of the most inferior kind, and such a thing as a large, melting, delicious, wealth-bringing, beautiful peach these growers never beheld; hence the newspaper report of thousands of bushels of peaches rotting in Howell county this year, were not peaches but seeds; and they are there yet, and will measure as much and bring as much in the market to-day as in their season.



"THE MEADOWS," STOCK FARM NEAR LAMAR, MO., ON THE MEMPHIS ROUTE.

NOTES FROM SOUTHERN MISSOURI--FRUIT GROWING AND ITS PROFITS.

Correspondence *Kansas Farmer*:

During the fruit-shipping season of '88 there was no section of country east of the Rocky Moun-

tains that attracted so much attention as did the fruit product of this Southern Missouri country especially that along the Kansas City, Fort Scott & Memphis railroad. Being desirous of knowing more of it and learning something of the profits, I visited the farm, here at Olden, Howell County, of the Olden Fruit Company. The farm contains about 3,000 acres, of which 800 are in cultivation. There are now over 60,000 trees, 40,000 peach and 20,000 apple, and nearly 30 acres of small fruits. The peach crop of '88 was 8,000 one-third bushel boxes, which brought on an average 85 cents per box, aggregating \$6,800. Of small fruits there was sold 658 cases of raspberries, 410 of blackberries and 41 of strawberries. For raspberries and blackberries they received \$3.00 per case, making an aggregate of over \$10,000. Taking into consideration the value of the corn and potatoes grown in addition to that of the fruit, and that this was really the first bearing year of the peach trees, it certainly makes a good showing both as to profits and success of fruit growing in Southern Missouri. The company will put out fifteen acres more of small fruits in the spring, and will add another hundred acres of peach and apple trees. Judging from the finely-flavored and handsomely colored fruit grown here one can not but conclude that the soil and climate are more fittingly adapted to growing and cultivation of all the varieties grown in a temperate climate.

The ten acres of pear trees promise well, and most of the thirty varieties of grapes do well. The climate has no superior for peach culture. There are now on the farm peach trees that were put out eighteen years ago, and are to-day sound and as prolific bearers as ten years ago. Another thing that strikes the visitor is the price of lands, which ranges from \$2.00 to \$4.00 per acre. Of course first-class valley land commands a higher price, but the upland seems to be better adapted to fruit culture. As a confirmation of that fact I visited Mr. E. F. Hynes, whose fruit farm lies on the highland near the town of West Plains, eight miles south of this. Mr. Hynes came to this country twenty years ago, and he began experimenting with fruit twelve years ago. Has originated several varieties of apples and peaches; of apples the Loy and the Levi, and of peaches the Surprise and the Nectar. Both these peaches are among the earliest varieties known and are being successfully propagated in New York and California. He has about 150 varieties, and when he hears of any new thing he procures and experiments with it. He may properly be called the "Daddy" of fruit men in Southern Missouri. He also exhibited thirty-four varieties in glass at the late Kansas City exposition, and took the lion's share of blue ribbons. In conclusion, for this time, I will say that I am more than ever convinced that this section of the country possesses greater and better advantages for fruit growing than any other I have visited, and for these reasons: The price of land is very low, especially so when one makes a comparison with the prices of lands in, say California, ranging from \$300 to \$1,000 per acre. Take the same amount of money that would be required to pay for high priced land and the amount necessary to be paid out before any returns would come from the sale of the crop, and right here in Southern Missouri in ten years time the same money will bring a higher rate of interest than in either Florida or California. It only needs to be carefully investigated and the most skeptical, I think, will agree with me.

"PROVISO," in *Kansas Farmer*.

Olden, Howell County, Mo., Dec. 6, 1888.

Correspondence *Kansas City Journal* upon the fruit resources of South Central Missouri:

This country is pre-eminently the home for the stock-raiser and the fruit-grower, and as I have already given some attention to the former, I will now say something of the latter. Fruit is not a luxury. It is a necessity. It is not for the farmer or rich alone, but for the poor of the cities as well. California, New York and Michigan fruits are too expensive for the latter to use freely. What, then, is to be done? Seek, in the heart of the Mississippi valley, a fruit belt capable of being developed into the great, great American orchard. You will find it here in the Ozark fruit belt—a region so long and so strangely overlooked—a region which, twenty-years hence, will be the home of King Fruit in the United States. Take your map and see the cordon of the great markets on all sides of it. It is within easy distance of Chicago, Cincinnati, Louisville, New Orleans and scores of other cities of scarcely less importance. It is only a night's ride from Kansas City, St. Louis and Memphis, in other words, within reach of 30,000,000 people. But let me submit other testimony than my own. "Your soil (the Ozark fruit belt is referred to) produces larger and smoother fruit than New York or Michigan," says Mr. Louis Erb, a well known commission merchant of Memphis, Tenn. "The flavor of Missouri fruits will make them favorites in any market," awarding committee of the New Orleans exposition. "Missouri orchards have fewer pests than California orchards,"

President J. C. Evans, of the Missouri State Horticultural Society. Mr. Smeltzer, a prominent commission merchant of Kansas City, writes under recent date: "The finest peaches in this market this season are from Howell county. I bar out no competitor, not even California, and I take into the account size, appearance and flavor." Mr. L. A. Goodman, the conservative and efficient secretary of the State Horticultural Society, wrote as follows to Missouri friends from California, under date of February 20, 1888. "If I were going into the fruit business to-day I should go to some good point in South Missouri, where you can buy good farms at from \$2 to \$10 per acre, and plant 40 acres, 80 acres, 160 acres of apple trees of desirable market varieties, such as Jonathan, Willow Twig, Ben Davis, and make more money on the investment than you will to go to California and grow oranges. This is pretty strong, you say. Well, so it is, but I believe it; not that I am dissatisfied with California, for I am charmed and delighted and should delight to live here if I could. But what I want to say is that the opening for good, systematic apple orcharding on our cheap lands of Missouri will pay a greater per cent on the investment than will the same in California, and it will not take half the money to begin with, either. But plant enough to make it an object, and get all your neighbors to plant two or three or four good market variety of apples and take care of them, cultivate them and don't starve them or choke them with crops, and my word for it, it will be the best investment you ever made." *

Missouri horticulturists have the courage to act on their convictions and many of them are engaging in the business with commendable vigor and on a large scale. Up at Olden, in this, Howell county, is a notable instance in the Olden fruit farm, containing about 2,700 acres. The first improvements were made there four years ago last spring. At present nearly 800 acres have been planted in peach, apple and pear trees, and in small fruits. Eventually the entire tract will be an orchard. The owners of this orchard are already reaping rewards. From June 15, to September 15, of this year, their average daily shipment of peaches was nearly 200 boxes.

Near this farm is an extensive vineyard, owned by a Chicago gentleman. The wine made from his grapes is superior to that made from Kelley Island grapes. He expects to colonize his lands in this county with about 300 families from the wine producing districts of Germany. It is not improbable that the vineclad hills of France and Sunny Italy may soon have a powerful rival in South Central Missouri.

But this communication is too long already, and so I'll stop, merely reminding the reader that further information respecting this country will cheerfully be furnished by calling on or addressing the Passenger Department of the Memphis Route at Kansas City, Mo.

A. D. B.

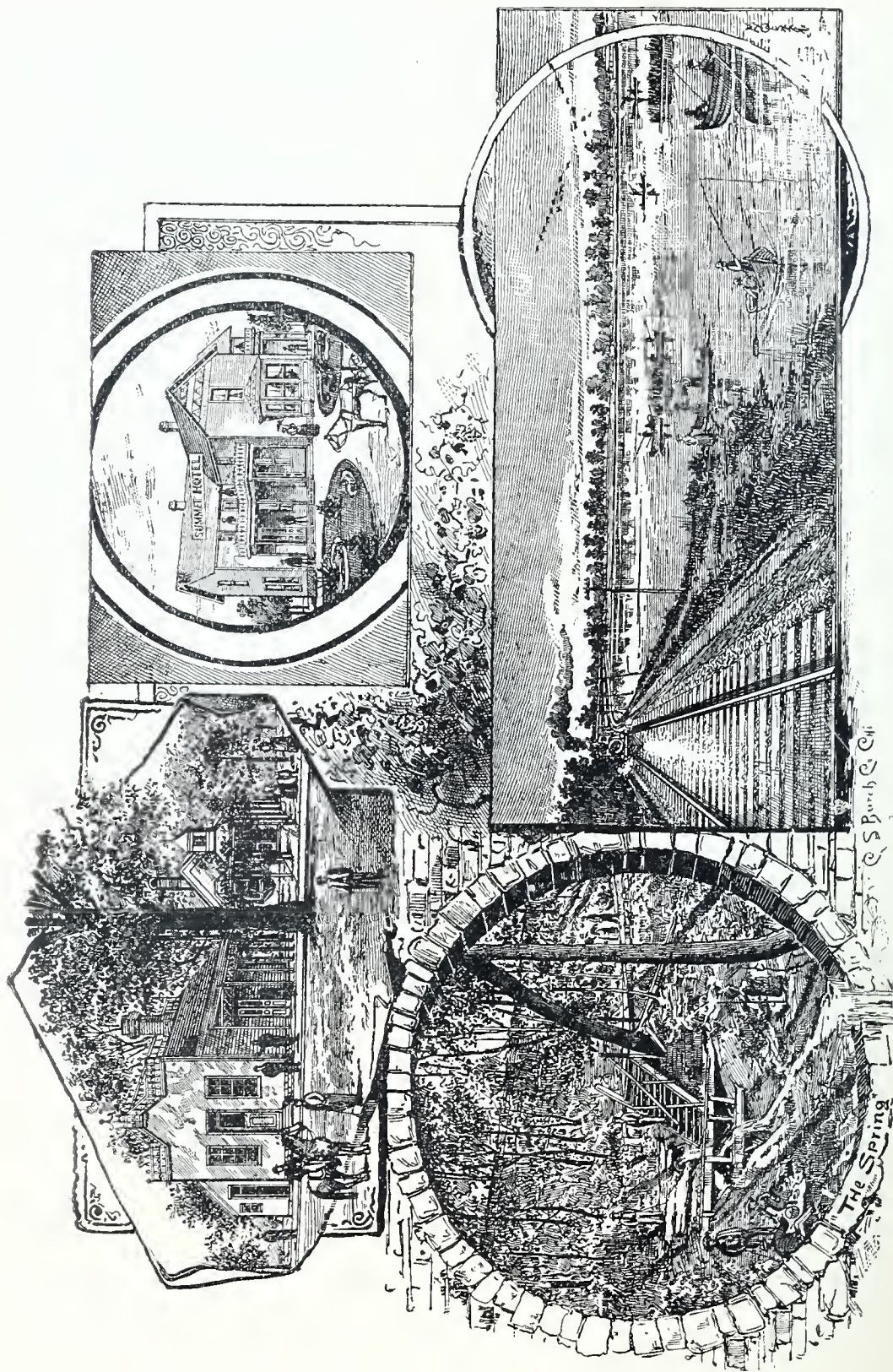
WEST PLAINS, MO.

ORCHARDING IN THE OZARKS.

BY A. NELSON, LEBANON, MO.

I am only a newcomer on the Ozarks, and to grand old Missouri, yet I am proud to-day in saying that so far as fruit interests are concerned, I made no mistake in locating on the Ozarks.

Six years ago I commenced cutting out bush and timber, clearing off land to make me a home. In this time I have cleared up and put in cultivation about 300 acres of land. During my six years here I have not been



AMONG THE OZARKS. VIEWS AT CEDAR GAP, MO.

idle by any means. I have tried to be a close observer of what I thought was for the interest and prosperity and bettering the condition of those in my locality, and have, I believe, proved beyond a doubt, this fact, that for general fruit growing, the Ozarks stand at the head, and before I close this paper, I will try and give my reasons for this belief.

First, be it known to you that the Ozarks or the raw lands of the Ozarks are to-day covered with a growth of timber. This with her soil so well adapted to orcharding and other fruits, attracted my attention as well as the attention of other fruit growers who have visited our part of Missouri and examined her orchards and her fruits. I have come to this conclusion in making examination of different fruit grounds in different localities, and soils; that for long-lived trees, giving good crops of first-class fruits, we must select the elevated localities, and if a northern or eastern slope, so much the better, for I find that for fruits grown on our uplands, which are all thin soils, such fruits are equaled by few and excelled by none; and all that is now wanting to make Southwest Missouri the leading fruit-growing locality of the world, is live, wideawake, energetic and progressive men, who will force the old foggy element into the last ditch, and men who will keep abreast of the times by joining with and taking part in meetings of state and county horticultural societies.

With such progressive, pushing men in the field who dare attempt to put on paper what the results will be twenty or thirty years from now in the way of fruit-growing.

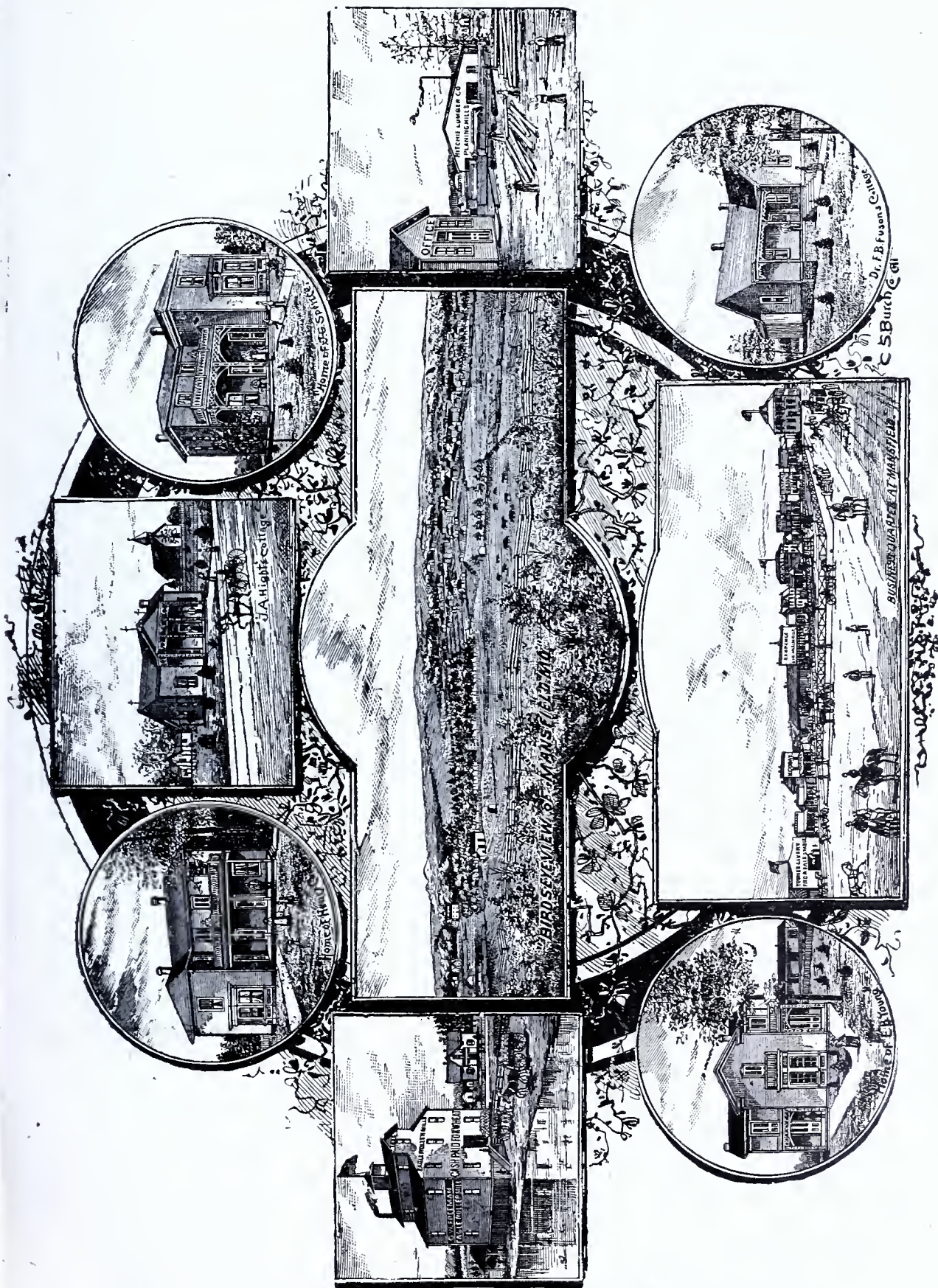
The subject of fruit-growing, while new or nearly so to me in Missouri, is not the case while living in the state of New York, for be it known to you that in coming to Missouri, I came from a land and home of fruits and flowers and how could an ordinary man help being imbued with a spirit of progress, when living among life-long fruit men, such as T. G. Youman & Sons, of Walworth, New York; Elwanger & Barry, Rochester, New York; the Haulses, of the same place; James Vick, also of Rochester, Hiram Sibley and others. By these men with ample means and great efforts put forth in the propagation and cultivation of the different fruits, shrubs and flowers, Western New York has gained for herself a most enviable name—a name that the people may well feel proud of, and in order to hold up Missouri fruits to the position now assigned her, much earnest work is to be done, of which I will refer to before closing.

My first visit to Southwest Missouri was made six years ago last October. I came to spy out the land, its facilities and conditions for general agricultural and horticultural purposes. I traveled over Leclde County, parts of Camden and Dallas Counties, and much of Webster and a small part of Greene County. In my travels lasting some twenty days, I made many examinations of orchards, the different soils I found them planted on, the size, quality and condition of the trees and fruits. In the examination of the old orchards I found many of the York State varieties—New York Belle Flower, King of Tompkins County, R. I. Greening,

Golden Russet, Newtown Pippin, Spitzenburg, etc., etc., while in the young orchards I found apples that to me were new.

But it was in meeting with the old varieties of York State apples that I was entirely familiar with, the growth, habits and qualities, that made the deep impression on me that this was truly a wonderful fruit country, and from this I was forced to believe that soil and climate had all to do with the quantity and quality of Missouri fruits. As my own apple orchards are yet too young to give results, let me give you results of a small Ben Davis orchard that is located four miles west and north of our city, owned and managed by ex-Judge Daniel Beckner. This orchard is now thirteen years old from the graft; trees were set in orchard as yearlings; set twenty-four feet apart; have had careful pruning, though not excessive; all superfluous limbs and water sprouts have been rubbed off or cut off twice each year. The land was cropped regularly the first three years, and then seeded down, and pasture for hogs since that time. There has been five crops of apples taken from this orchard, and Mr. Beckner has kept a correct account of his merchantable fruit, and has to the credit of each tree the sum of \$7.50 per tree, besides the culls and second quality for drying and making cider. At seventy trees per acre it is easy to see what kind of a profit there is in orcharding in Southwest Missouri, or I may say in any part of Missouri, where you have the same soil and climate that we are blessed with.

Mr. Beckner, while a man of nearly sixty years of age, is preparing to put out about 2000 Ben Davis this coming spring, having a strong faith in the future prospects of fruit growing on the Ozarks, and right here I want to make a statement that affects to-day and will affect for all time to come unless changed. (This may come up under another head and in some other way, but I have been there and I know whereof I speak.) After my travels over the country six years ago and after having seen and examined the fruits and other crops of Missouri, I made up my mind that I would take a car load of apples to York State with me, and, in doing this, I could then fully determine the keeping quality as well as the general quality of the fruit. I bargained for a car of fruit that was all to be hand-picked, barreled and put in good shape in the orchard. I paid for my fruit and left directions for shipment, and I left for my native state. In about three weeks the car arrived at Buffalo, N. Y., and I had arranged to place from two to six barrels of fruit in the hands of different families in the City of Buffalo. When car arrived I went to see it and began examination of fruit. What did I find? All fruit that had been properly field-packed in orchard was in splendid condition, but the fruit that had been drawn loose in wagons—about thirty per cent—was fully twenty-five per cent rotted or spoiled, and result was a serious loss out of the experiment yet, I think, it will prove a good investment in the long run, as I have fought this ruinous and slovenly way of handling our fruit ever since I located in Missouri, and if we want to hold up the reputation of our fruits in the markets of the world, we have got to sit down on this miserable practice of handling our



AMONG THE OZARKS. MANSFIELD, MO., ON THE MEMPHIS ROUTE.

fruits, and I feel sometimes that a law should be passed that would enable a true horticulturist to have a man arrested that was caught drawing first-class apples to market in a lumber wagon loose. And while on this most important point I hope this body, representing, as it does, one of the greatest, grandest and noblest interests of Missouri, will take this matter in hand and enter their solemn protest against such handling of fruits. To my mind, the only way for apples to be handled is to be hand-picked and packed in barrels in the orchard and under the trees on which the apples grew. In this way and this way only can the fruit of Missouri be held up to that grand position now assigned to her and the grand position she has won through the labors and efforts that have been put forth by the members of the State Horticultural and County Societies.

And now to my own labors in the way of orcharding and fruit growing on the Ozark. Four years ago, last spring, I put out different varieties of apricots, plums, cherries, crabs, apples, etc., etc.; also setting out different varieties of peaches and some 750 apples. The following fall I put out 800 peaches and 1000 apples, and same years put out 7000 hills of black raspberries, and following year 2000 red raspberries, and last spring put out 1500 Ben Davis apples and 100 Tulpahocken or Fallawater apples. We had about three thousand apples, 800 peaches and some berries to look after. A part of my peach trees has given me two full crops, another part one full crop, while a large majority has not borne at all. I have no doubt made many mistakes, yet some one has to make mistakes or else lookers-on would gain no benefits.

My first orchard I put out I put it in new seeded ground, seeded to grass alone. After trees had been set one year I had my men take spading forks and work the ground all up mellow about the trees, a circle four feet across. This I have kept up each year, leaving orchard still in grass; trees are making a good healthy growth. A few Ben Davis bore fruit in 1887, and last spring it was a sight to see the bloom on this young orchard; and I was looking ahead for a big job plucking fruit or thinning out from the young trees. But Dakota saved me the trouble by sending one of her cold waves down here after fruit was nicely set, and that cold wave did more in one night than I could have done in a week of good work. Result—this season a strong growth of good wood, and if Dakota will keep her blizzards at home next spring, I hope to show you fruit next winter from that orchard.

FRUIT INTERESTS IN SOUTH MISSOURI:

D. S. Holman in 31st. Annual Report State Horticultural Society.

In order to have extensive, successful and profitable fruit growing, there must exist favorable conditions in soil, altitude, temperature, etc., also good facilities for transportation to a reliable market. South Missouri

has all this. Nature has given the first, and the latter is furnished by the Kansas City Ft. Scott & Memphis R. R. This road, from Kansas City, the great distributing point for all northern and western markets, leaves the coal fields of Kansas at Arcadia, runs with an "up grade" from Lamar, in Barton County, through Dade and Greene to Springfield, the summit of the Ozark range, thence east to south across Greene, Webster, Wright, Texas, Howell and Oregon, leaving the state of Missouri at or near Thayer and Mam. Springs and on to Memphis and thence south to the Gulf States. These counties and adjoining lands on either side constitute a wonderful plateau on top of the Ozark Mountains, from the Kansas line, well on toward the Missouri river. About one-half of Barton, Dade and Greene, is smooth, beautiful prairie, with deep, productive soil, and devoted to agriculture mainly. The apple is being liberally planted and coming into successful fruiting in Barton and Dade. In Greene there are thousands of acres of full bearing orchards from which large crops of excellent fruit are shipped out west and south annually. The utility and profits of the enterprise have been so well and satisfactorily tested here that hundreds of acres are being annually planted in all the country near Springfield, on and near the railroads—two trunks and their branches.

Southeast of Springfield these lands are nearly all timbered, which is better.

Webster and Wright, with Douglass and Christian joining on their south, and Texas on the northeast, abound in cheap timbered lands admirably adapted to fruit growing, which is apparent to every well posted horticulturist who has had a look even from the car window. But further proof is afforded by bearing orchards at many points along the way. At Cedar Gap, in Wright County, the highest altitude of the entire range is reached 1,800 feet above sea level. We commend the good taste, wisdom and enterprise of Col. Erb. of Memphis, in his selection of this point for a summer resort for his family and select friends. It is most romantic, wild and captivating in the scenery of its wide surroundings, and atmosphere as pure and clear as their drinking water from his spring in the park, which he has named "Cassano." Mr. Erb, to wed business with pleasure, has planted a fruit farm of 200 acres, to be still enlarged. He has recently purchased here the Lake View fruit farm, planted by Capt. Foote. This he is enlarging and otherwise improving. Mr. E. so possesses the elements of success as to leave no doubt of the influence of his example upon those who will, wisely, soon follow in the fruit enterprise on these high lands.

From Cedar Gap south-eastward, we realize a gentle slope toward the "Father of the Waters" yet far away. We enter Howell County at its northwest corner and pass out at its southeast corner, at the head of Spring River, in Oregon County. We are now in the peach belt proper. The peach is grown with profit on all the Ozark range, but this south-eastern slope is destined, soon, to be termed the peach belt, or "peach fields" of Missouri. From the first settlement of these counties, peaches of excellent

quality grew accidentally inside of almost all enclosures. This was very suggestive, and it is now proposed to make Howell the banner county in peach culture. The apple also succeeds here to perfection, and so of all fruits, common anywhere within the Temperate Zone.

At many points in Howell and Oregon, experienced fruit growers have entered into the business with such good faith, energy and system, as to prove already that the necessary conditions naturally exist here. Such are not only making valuable developments for others to use, but are slowly, almost unintentionally and surely writing horticultural history and record for this country, soon to be read and known extensively.

The largest enterprise of this kind is near the center of the county at Olden, by the "Olden Fruit Company," who are devoting 3,000 acres of selected land in a body on both sides of the railroad, to fruit growing. The tract is enlarged as opportunity occurs and is being subdued and systematically planted as fast as it can be done well. Every year thousands of trees are added and all kept under good cultivation. Apples are planted largely and pears freely, but the peach most largely.

Twenty to thirty acres planted to the various berries, are in full fruiting and could not be better. This Olden Fruit Farm at its present youthful state, in bloom or under a crop of fruit, is a lovely picture—a grand show of success demonstrating the fact of all I have stated and more that I could say of the wisdom of the selection just here, and the admirable adaptation of all the adjacent country in this southern slope of the Ozark Mountain to profitable fruit culture. These gentlemen of the Olden Fruit Company, with ample means, business skill and horticultural knowledge, as a matter of paying business, have invested wisely; but a plant like this has a much larger utility for the general horticultural public—it is a benefaction for all Howell County and all the hill country of South Missouri, so without the aid of a prophet, it may be now safely guessed that in a few years, as mineral regions are given up to furnaces, smoke and cinders, so will these Ozarks of South Missouri be given almost wholly to fruit farming, whose products will find quick transit and a ready market in the western cities of the plains, in the hungry, sunny south, and in the cold, fruitless regions of the north, while by car loads whole packages of the best shippers will go to Europe and elsewhere. The canneries and evaporators will exist in numbers ruled by the amount of surplus fruits to be worked into best keeping shape for long voyage and sure sale when wanted most.

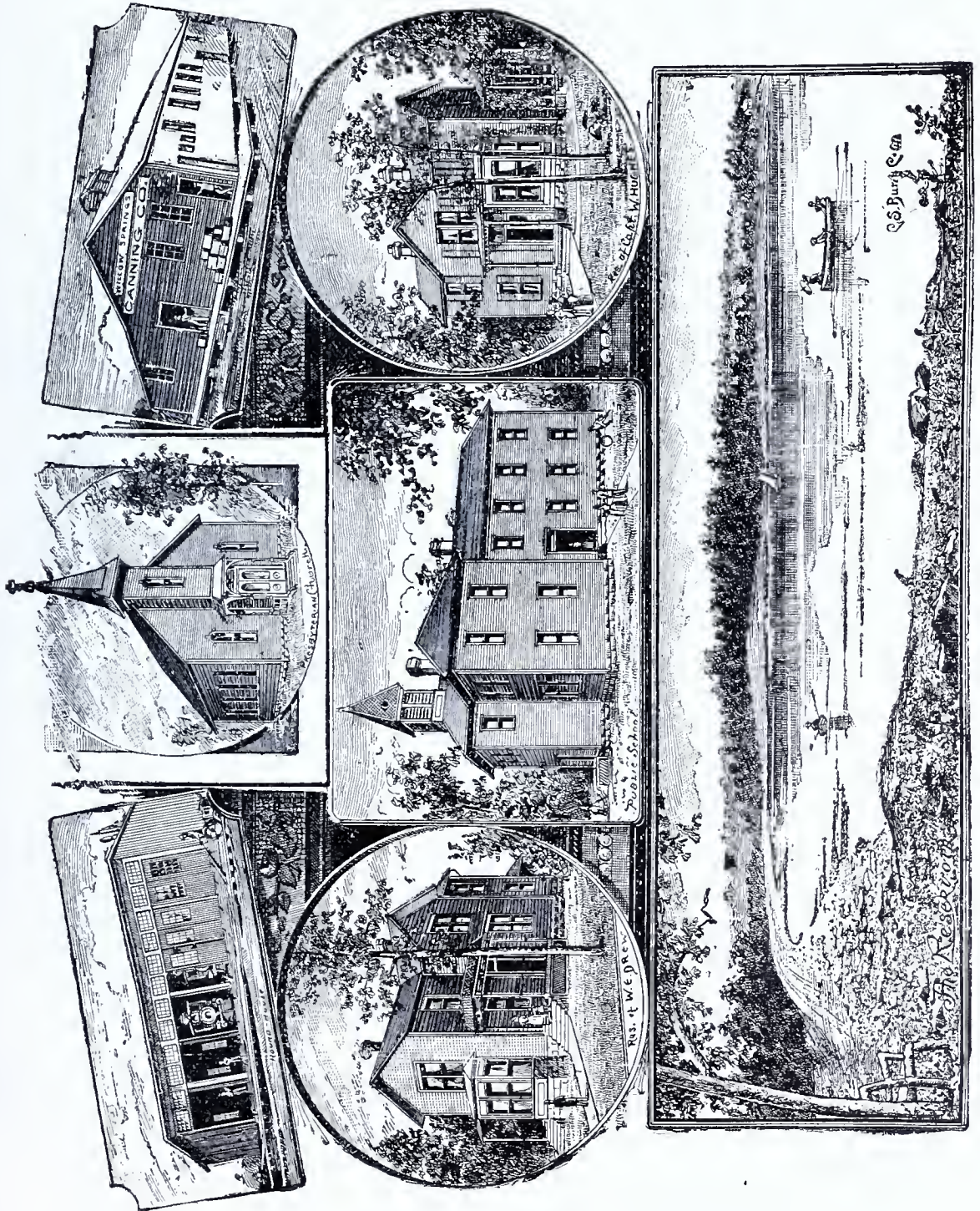
The practicability of fruit growing in South Missouri has ceased to be a problem. That is fully solved, and the rapid growth of this industry into very large proportions is only a matter of short time.

COMMERCIAL ORCHARDS.

Where the soil and location are favorable, and where a good market can be conveniently reached, the growing of choice fruit for market is a paying industry, but the measure of success attained will depend upon the

practical knowledge and skill of the operator. He must not only be able to make a judicious selection of varieties adapted to his soil and climate and to the markets for which they are grown, but he must understand and practice the proper modes of culture and also of gathering and marketing the fruit.

A majority of the failures in fruit growing are made by farmers who



WILLOW SPRINGS, MO., ON THE MEMPHIS ROUTE.

try to farm extensively at the same time. The time and attention that should be given to the fruit is put upon the farm crops and the fruit fails through lack of care. Not one farmer in fifty knows how to grow and market the fruit so as to get the most money out of it. Successful fruit growing requires more scientific knowledge, reducible to practice, as well as more skill in the performance of the work required, than is necessary for the same measure of success in the growing of ordinary farm crops. It is blind folly to think of success in commercial fruit growing by mere guess-work and blundering in the dark; it is a useless waste of time and labor.

An apple orchard, for commercial purposes, should comprise but few varieties, and they should be such as are known to be hardy, productive, and adapted to the soil and locality of the grower. The fruit should be of good size, handsome appearance, of good keeping qualities, and firm enough to ship well. Apples, when gathered, should be handled as carefully as eggs. Apples for shipping, should be gathered earlier than is customary with most growers. They will not only ship better but keep better. When gathered and left in the orchard until barrelled, they should be piled on clean wheat straw, and covered with corn fodder, to protect them from sunshine and to carry off the rain. Never cover with straw; the chaff falls down among the apples, sticks to them, and greatly injures their appearance.

To make a success of peach growing, one should select elevated sites, and warm, sandy soils, or localities near large bodies of water. In most situations a peach orchard should be well cultivated. Keep down all weeds and grass, in order to repel the borer, so destructive to peach trees. Wash the trunk of the tree with strong suds made of soap and carbolic acid, and scatter wood or coal ashes around the roots of the tree.

MISSOURI FRUITS.

G. W. HOPKINS, SPRINGFIELD, MO.

In the beginning, I take the position that there is not a county in the whole State of Missouri but what will produce some kind of fruit. Of course some kinds are brought up to a higher state of perfection in some localities than others, owing to difference in soil, latitude and climatic influence. Apples, pears, plums and the small fruits are grown successfully in most all parts of the State. But the home of the peach is on the southern slope of the Ozarks. Here, nature has established a barrier against the bleak, wintry winds which sweep over other portions of the State, generally killing the fruit and often the trees.

In the Ozark region the peach crop is rarely a failure. The fruit

ripens in all its perfection, colors beautifully and the quality is unsurpassed. Missouri fruits have now a national reputation. The exhibitions which have been made by the State society on several occasions have been an object of wonder and admiration to all who have seen them. No grander display of fruit was ever witnessed on the American continent than that shown by Missouri at the World's fair at New Orleans, and last year at St. Louis. And so we might say of many displays made by our local societies at different fairs over the state, though on a smaller scale, were just as good so far as they went.

The display of fruit and other products of South Missouri collected and shown by Mr. Nelson at Buffalo, and other points in New York, seemed to impress the citizens of that grand old State, so long famous for its horticultural products, that there was a state out west called poor old Missouri, which would come out victorious every time in a horticultural show.



FALLS OF FINLEY RIVER, ON THE MEMPHIS ROUTE, NEAR SEYMOUR, MO.

REPORT OF ERB & CO., MEMPHIS TENN.

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To the Missouri State Horticultural Society:

For your information, and those of your friends who are interested in Missouri horticulture, I will, however, say a few words, which may be of some interest, even at this late date.

Two years ago, and last year, Missouri apples, and especially those grown in the Ozark fruit belt, gave us better satisfaction than those grown along the Ohio river or in the East. We found them to be better keepers and having a good color and size. When put up properly and honestly, they gave uniform satisfaction. The varieties we have handled mostly were the Ben Davis, Winesap, and Jenitons; of Huntsman's Favorite, we handled but few, and they were quite satisfactory.

The most popular Missouri apple in this market is the Ben Davis; not so much on account of its eating qualities—for it is really not a fine eating apple—but on account of its uniform large size and high color, which take the eye, especially of our large apple eating population throughout this section. The next popular apple is the Huntsman's Favorite on account of its fine flavor, its fair size and desirable color. Wherever they do well we would advise their cultivation. The Winesap and Jenitons are well liked as a family apple, and if men that pack them would only leave all the little trash out of the barrels and sell them for cider, and put only good sized apples all through the barrels we could sell them almost as readily as the Ben Davis, and for about as much money. If you want to make Missouri apples popular in this market pack good sized fruit all through the barrel, and use a barrel holding 11 pecks of apples. Some apple men think it is economy to use small barrels and that they are making something by it. That is all a mistake; an honest 11 peck barrel and honest packing is the only thing that pays in the long run.

I am satisfied that in the years to come your section of the country can supply all the apples our market demands. I think your soil produces smoother and larger fruit than New York or Michigan, and when that can be had, all small and knotty fruit is not wanted.

The main thing for you men learned in the art of Horticulture is to impress upon the minds of your fruit growers to plant only a few varieties of apples, and only such as do well in their localities, always having an eye to large fruit. Furthermore, tell them to pack for market only merchantable sizes of apples, culling out all small trash, which will be in good demand for cider.

If a commission man says to a produce dealer, "I have a car load of good sized, good colored apples, at the depot, consisting of two or three or, at most four varieties," he always finds him willing to go along and make an offer, even on a dull market. But if he says, "I have a car of medium and small and some large fruit, between forty and fifty varieties, the chances are that the car will remain on the track or go on storage, on a dull market, and get no offer.

The railroad companies charge just as much freight for a small barrel of trashy apples as for a large barrel of choice apples. Therefore, I say unto you Missourians, send us good fruit, honestly packed in good sized barrels, and will not only realize you good prices, but aid you to make Missouri apples the most popular in our market.

One reason why I like to handle Missouri apples is because you are so near to us. We had apples sent from New York State from 10 to 20 days, while we got them from you in two to four days. In addition to this the freight rates by the K. C., Ft. S. & M. railroad are quite reasonable, and we suppose in time will be more so.

LOUIS ERB.

HOW TO PLANT AND GROW AN ORCHARD.

BY DAN CARPENTER, BARRY, MO.

The subject selected concerns every owner of a home, from a town residence to the largest farm, desirous of making the useful ornamental, and home healthful and happy; and is an appropriate sequel to "where shall we plant our orchards."

These suggestions are drawn from 25 years' experience, and more from errors and failures than success; and are designed to help others to avoid similar mistakes, economize labor and hasten fruitfulness without danger of premature decay and death to the trees.

The apple and pear only are considered, yet much is applicable to all fruit and tree culture.

The intelligent selection of a site is very important to a successful growth of an orchard.

In the paper read at the St. Joe meeting December, 1884, I presented my views on "where to plant our orchards," and I need not here repeat them, except, "a Northeastern, Eastern or Northern slope, in the order named, is the most desirable," the opposites to be avoided. In two young orchards near me, about 10 per cent has sunscald, 90 per cent of which is on the western and southwestern exposures.

But as all the world does not slope to the desired points, nor every one's land lay so as to afford an intelligent selection of sight, on these principles, and as people will plant fruit, no matter what the "lay of the land" be, it is a matter of vastly more importance to make an intelligent selection of varieties adapted to the particular lay of the land, be it what it may. There are varieties which will succeed on any exposure, and whatever the lay of the sight; by a careful and intelligent selection, varieties may be had which will assure fruit. Visit all orchards near and select such as have "done well" on land of similar lay as what you have designed for your orchard.

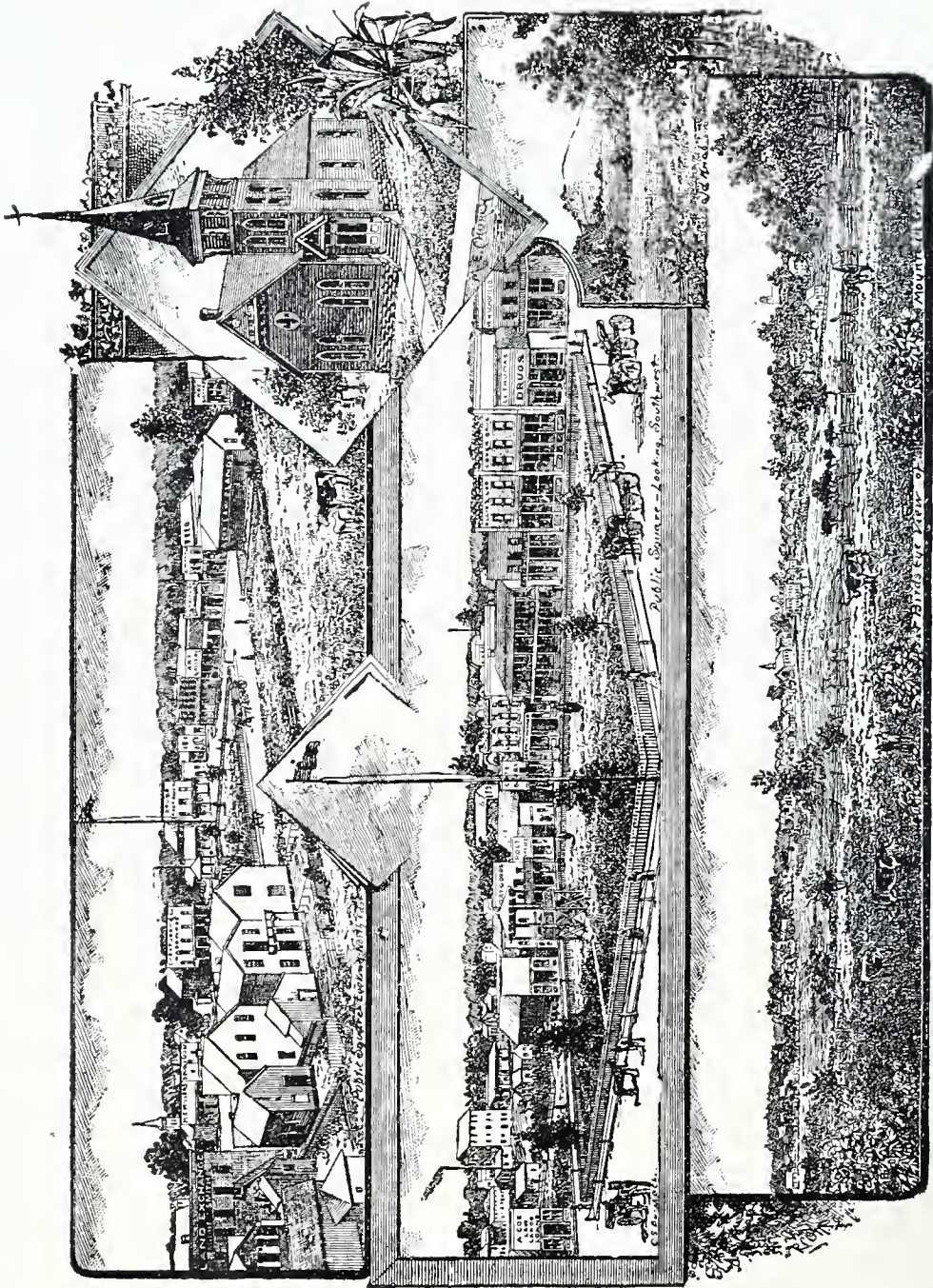
PREPARATION OF THE SOIL.

The location of the orchard determined, by choice, or necessity, a thorough preparation of the soil necessarily follows as the next step. In this, as in everything else, "make haste slowly." When an orchard is decided upon, men are usually taken with an impatient, can't wait spirit, weakness or mania. Most frequently an orchard is planted in unprepared or at best, half-prepared soil, hoping to get fruit a year or so earlier. Also, by planting trees four, five or even six years old. No greater or worse mistake can be made. Young trees, of one, two or three years' growth, planted a year or so later, on well prepared soil, will yield paying crops as soon, and of better quality and greater perfection than if planted on the same land unprepared. If the soil is not sufficiently fertile to produce fifty to seventy-five bushels of corn per acre, enrich with well rotted barnyard and chip manure, leached wood ashes, compost, if you have it, droppings from a henery, filth from the pigstye, old bones, bone dust, anything that contains phosphates, ammonia and other fertilizing properties. Thoroughly break and sub-soil in the fall, the deeper the better, that it may have all the benefits of freezing and thawing, snows and melting, so as to admit the warmth of spring as deeply as possible. Pulverize finely, and smooth with roller.

With a large plow throw out three or four furrows (following with a subsoil lifter to loosen the earth deeply as possible), at the desired distance, apart for your trees, and cross with marker into squares; with your trees and one man in a wagon between the rows, and two men on either side, proceed to set in straight rows; one man holds the tree, spreads the roots into natural position (the longest laid to the point whence comes the prevailing winds), works the soil thoroughly among them and tramps, while the other throws in the best soil at the bottom; then fill the trenches by throwing back with a large plow and one horse, bringing to a level; use leather tugs and short swingle-tree, having a wide strip of leather attached to the tugs extending back over the end of and tied around the swingle-tree, to avoid bruising the bark.

This is done more rapidly, and is equally good as the old way of digging holes three feet square and eighteen inches deep. Set trees a

little deeper than in the nursery, and if in the fall, mound up six inches; if in the spring, leave the surface slightly concave, a foot or more, to catch and carry the rain more certainly to the roots. If the soil is in good tilth no watering is necessary. Mulch heavily if the season be dry, lightly if wet, until the trees are firmly established in position. After this the mulching should be by good and clean culture, keeping the soil loose around the trees; a heavy mulch of leaves, straw or sawdust, especially the latter, for a series of years, or a continued



AMONG THE OZARKS. VIEWS OF MOUNTAIN GROVE, MO.

growth of grass, clover or weeds, will cause the roots to seek warmth very near the surface, endangering the stability of the tree.

The distance apart may be 30, 32, 33 or 35 feet for apples, 20 for standard, and 10 for dwarf pears. I find all old orchards, that have stood 50 years, are about 33 feet generally. Study the growth and habit of the varieties selected and give them ample room.

Tree roots seek the solid ground and require certain degrees of warmth and moisture, in the earthen laboratory to dissolve and chemically prepare plant food to be taken up by 10,000 mouths, thence to be drawn by buds and leaves into the aerial laboratory to receive from the atmosphere elements necessary to adapt it to wood, leaf and fruit growth, expanding and developing the plant, as it descends, pushing the roots farther into the unexplored soil from which to draw fresh supplies of nourishment—the roots furnishing supplies for the growth of the head, and the head for the extension of the roots.

What aged trees? Buy thrifty one year old trees, from a responsible, honest nurseryman, "who knows his trees as he does his children, just by their looks," (double the number designed for the orchard), plant as you would corn, cultivate well and cleanly for one and two years, pruning intelligently, preserving an evenly balanced head, and a healthy leader with a view to the formation of a head in the orchard high enough to admit of continued clean cultivation under and close to the tree. In the meantime cultivate the orchard site, after the preparation designated, in tobacco, cabbage, beans, onions, melons, tomatoes, or any crop requiring clean culture, breaking deeply after the crop is removed. In the spring, select from the nursery grown trees—now two years old—the most thrifty and set in the orchard as directed. Continue cultivation of nursery and orchard. The second year finish setting the orchard from the nursery with trees, now three years old. These you may sell to your neighbors for enough to pay original cost of trees, and have sufficient left to reset an occasional one that may die in the orchard. Trees three or even four years old may be set direct from the nursery, with scarcely a perceptible check to their growth. Trim broken and mutilated roots with a smooth upward and outward cut, that the rootlets forming from the callous may be forced to a downward tendency.

The orchard is set and now comes the tug of war: war against weeds, tent caterpillar, canker worm, bark louse, field mice, rabbits, borers, while, with cheerful face, you carry the peaceful implements of war and death in the other, as did the Israelites when rebuilding the walls of Jerusalem.

If you would have an orchard to be proud of, and fruit to rejoice over, the war must be carried into Africa, and the cultivation from early morn to dewy eve, and from March to December. Put forth thy strength in the morning, thy wits all day, withhold not thy hand at night.

Tobacco is one of the best crops to grow, requiring clean culture, while its stalks and stems thrown around the collar of the trees are for the kill-

ing of borers. A few stalks and leaves hung in the crotch or leader, so that the rains may carry its death-distilling juice down the trunk, disposing its delightful aroma on the evening air, will have a most beneficial effect on the bark louse as well as borers. But if your morals are too high-toned and your Christianity too pure to allow growing the obnoxious weed, take cabbage, beans, tomatoes, melons, or any low crop whose principal constituent is water—even potatoes. Potatoes are very exhaustive on the soil, but may be grown if a heavy dressing of well decomposed barnyard manure is turned under immediately after removing the crop. If you have no market, or can make no use of such crops, some of the early, low growing varieties of sugar corn may be grown by leaving a row of trees, north and south as a row of corn. This is one of the best pork producers and may be “hogged down” in time for fall breaking.

An abundance of loose soil as a mulch will cause the roots to take strong and deep hold of the solid earth, anchoring your trees against the wildest storms, except tornados and cyclones which respect neither low nor high heads. Neither is a protection against sunscald, which is produced by freezing in winter and developed by warm suns before foliage sufficient to shade the trunk appears.

The best fruits are on the topmost branches; the poorest in quality, size and color on the lower limbs. All pruning is best done while the tender growth may be pinched or rubbed off. Avoid the knife if possible, take out all interlacing branches as soon as discovered, keep an open, evenly balanced head, nip all shoots proudly rearing themselves above their fellows. All cultivation should cease the first of July, except late fall breaking. Keep up the fertility and your heart will swell with praise and gratitude to the author of your god-given occupation.

Eternal vigilance, a discerning eye, an industrious soul, unceasing toil, sound judgment, a bending knee, a sharp knife and a double-barrelled shotgun, is the price of an orchard.

If you follow these directions carefully seven years, you will reap a reward worthy the labor and sacrifices; one that will afford greater happiness to yourself and family than any and all other departments of your rural life.

PACKING AND MARKETING APPLES:

BY C. THORP WESTON.

In answering this question we will first give our mode of packing. Have the apples picked carefully from the trees, and in no case mix wind-falls with the shipping fruit. If you have men that can be relied on, orchard packing is preferable, as it saves bruising the fruit in hauling to railroad. If fruit for immediate use, pack from the tree, but if to keep over

winter, it is preferable to put the apples in rail pens and cover them to protect from rain and sun, and let them remain for about two weeks, as the apples will shrink in this time, and the defective ones will show plainer. First select bright colored, perfect apples of uniform size, and place two rows of facers with stem end down, and be careful to make them fit tight over the bottom of barrel. Assort the balance of the apples very closely, rejecting all apples among large varieties under two and a half inches in diameter, and small varieties under two inches; also, all scabby, knotty and specked apples. Shake the barrel well several times while filling. If the fruit is soft, press it very little in heading; if hard, turn stem end up, putting in some small apples to fill up the spaces, and fill an inch or two above top of barrel, and head with press. Stencil name of variety on face end.

If you will pack your apples in this way and the fruit dealers once become acquainted with your packing, the problem is easily solved of marketing it at the top prices, as there are so few who know how, or at least who do pack their fruit in this way, that dealers are anxious to get all of this class of packing offered, and will send in their orders for it. In fourteen years' experience I have never tried a farmer packing his own fruit that would pack it right, and know of very few men in the fruit trade who do good packing. Common sense ought to teach a man that with the freight charges we have to pay, we get so much better price for good packing, that we not only save the freight on the poor apples, but get a great deal more for the good ones than all together would bring.

If you do not expect to make it a business, and there is a packer near you who will pay a reasonable price you had better sell at home, for if he has an established trade he can get a much better price than you will realize. If not, and you have no established trade, ascertain the names of large fruit dealers in different markets and, if you have packed according to instructions, you can give them prices; write how they are packed, insist on them trying a sample car, and agree to sell to no one else in their market if they will push and advertise your brand and buy no other fruit, and in this way get it on the market. When once you get established you are all right.

I followed packing for a long time before I found out how to advertise my packing. But for several years I have been able to get orders for a great many more apples than I can pack. I sell straight out for cash on receipt and examination of fruit, and draw on the parties through the bank. I sell exclusively by correspondence.

In the above I speak only of apples, as I am not posted on handling any other kind of fruit. If I can assist in keeping the poor fruit off the market I will be thankful, as that is what demoralizes the markets.

SOUTH MISSOURI

From L. A. Goodman, Secretary Missouri State Horticultural Society.

South Missouri as a fruit growing section has become a common question for me to answer and I answer it by saying that South Missouri is one of the best fruit growing sections in the whole of these United States. Can you understand that? Strawberries, Raspberries and Blackberries grow as well here as in the famed district of Central Illinois where they load trains each day with their products. In all my travels through the many states I have found the finest vines and fruits in South Missouri of any location. Strong, stocky, healthy growth; large, juicy, delicious berries, productive and long in bearing are the vines as can be found anywhere. Good small fruit plantations will pay from \$50 to \$75 per acre. Peaches—the home of the peach—these red lands give such a quality and flavor, as well as quantity, to the peach that it is certain to rival the peach section of Delaware, Maryland, or of Michigan. I know that no better peaches can be grown anywhere than are here grown. I know that no larger quantity can be produced to the tree than here. I know that no healthier trees or a more vigorous growth can be produced in any country. Will you think I am visionary if I say that the peach belt of the United States is on the southern slopes of the Ozark mountains. Well I have said it any way, good varieties well cultivated will pay well \$100 to \$150. per acre.

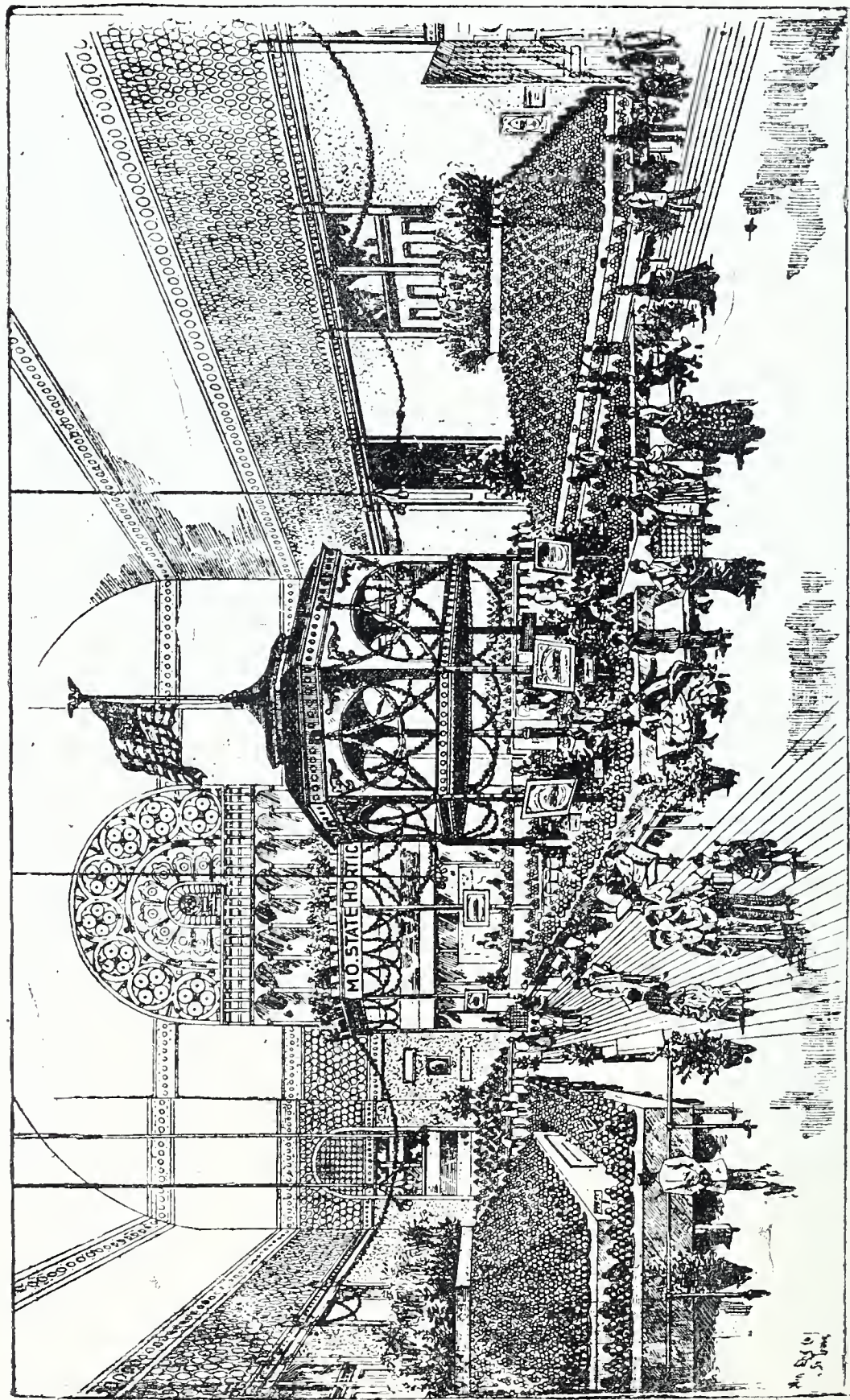
Cherries, plums, pears are just beginning to show results and I will not speak too highly of them. Apples planted with the best market varieties carefully cultivated every year, well cared for, well fed and well protected will be a gold mine to the owner. These Ozark hills are full of mineral but the best money to be had out of them we will get out of the fruits which they produce, the mountains are covered in some places with valuable timber, but the next crop of fruit will be worth \$100 where the timber is worth \$1. Although lying about latitude 37 yet the altitude of 1500 feet gives the climate cool enough for the best maturity of the apple; and the soil has iron and lime enough to give the best of color to our fruits as well as the best of quality. The pears and peaches are so far ahead the California fruits that one has but to taste to be satisfied; while the apple is equal to those produced anywhere in the United States. Apple orchards of 100, 200, 300, 400 acres are being planted now and the more we can see planted the better. The peculiar location of this country, the elevation, the freedom from the heavy winds, the abundance of rain fall, the protection by the highest peaks and pine timbers, the peculiar red lands (always fruit lands), the many streams and springs, the nearness to market, the quick communication, the low price of lands, the growth of timber, all prove to me that South Missouri is one of the favored locations for fruit growing. I have visited hundreds of orchards all over the states and I am not afraid of con-

tradition when I say that Missouri has more good fruit lands than any other state in the Union and that with her 20,000 fruit farms, 100,000 people employed on these farms, and \$10,000,000 as the product of last year's crop, it will be only a beginning of what we shall see when our fruit lands are developed. Do you want a better showing? But remember that fine fruits are not a spontaneous growth, but that it takes knowledge, hard work, vim, business, time, and money to get these results. L. A. GOODMAN.

MISSOURI A GREAT FRUIT STATE.

Missouri a great fruit state? Missouri makes a great show of fruit such as has never before been equaled? That cannot be. I know Missouri is a great state, and ranks among the first in the production of corn, wheat, oats, hay, mules, horses, hogs, cattle and sheep; but for fruit we must go to Pomona's realm among the orange groves of California and Florida; the peach orchards of Delaware and Michigan, and the apple orchards of New York, and the region around the great lakes. Doubtless Missouri grows considerable fruit for home consumption, but it cannot be expected that the state can produce fruit sufficient in quantity, or good enough in quality to compete with the products of localities more favored in soil and climate for fruit growing. The foregoing expresses very nearly the opinion held by the general public regarding Missouri as a horticultural state. Those who have studied the natural advantages and resources of the state know that altogether too low an estimate is put on them in this particular as well as in others. They know that in no like area on the continent is there more fertile soil, or that which, from its diversified character, is adapted to a wider range of products than in Missouri. They know, too, and the fact should be patent to anyone who will glance at a United States map, that Missouri's geographical location is such as to give her an unequaled climate. Far enough south to escape the effects of the northern blizzards, her northern line marks in that direction the limit of successful apple culture. Her southern counties do not extend into the regions of too great and enervating heat, and between her southern line and the Ozark mountains is the future of the great peach country of the world. On the hillside and mountain crest of South Central Missouri, on the rich prairies of Southwest Missouri, which extend to and across the northern part of the state; along the 400 miles of Mississippi river shore on the eastern line of the state, and the 400 miles of Missouri river that flows along the northwestern line and through the center of the state; upon almost everyone of the 69,000 square miles of Missouri land, fruit can be grown in profusion and of a quality unsurpassed.

It has been a long struggle to make these facts known, not only to home-seekers from other States, but even to our own people, to convince them that a peach orchard in Southern Missouri, a small fruit plantation in South Central Missouri, or an apple orchard almost anywhere in the State,



SOUTH MISSOURI FRUIT EXHIBIT AT ST. LOUIS EXPOSITION, 1888.

is well taken care of, a paying thing. But thanks to the *Rural World* and Missouri State Horticultural Society, the people are becoming convinced of the truth of what has been iterated and reiterated a thousand times. Thousands of acres of orchards are now being planted yearly, not simply family orchards for home use, but commercial orchards of from ten to fifty acres, and it will not be long until Missouri apples will comprise a large share of those put on the market. And they will sell, because they will be equal to or better than any grown in other States. Have not Missouri apples been shown at meetings of the Mississippi Valley Horticultural Society, the American Horticultural Society, the American Pomological Society, at the World's Exposition at New Orleans, and on many minor occasions, when the best fruit in the Union were contestants for honors? And never yet has Missouri failed to take first honors where her fruit was shown. And these results have been obtained almost without State aid, but with little co-operation on the part of transportation companies, and not only by the officers of the State Horticultural Society going down into their own pockets for money with which to pay expenses, and by giving their time and labor without stint to the cause, even to the neglect of their own business.

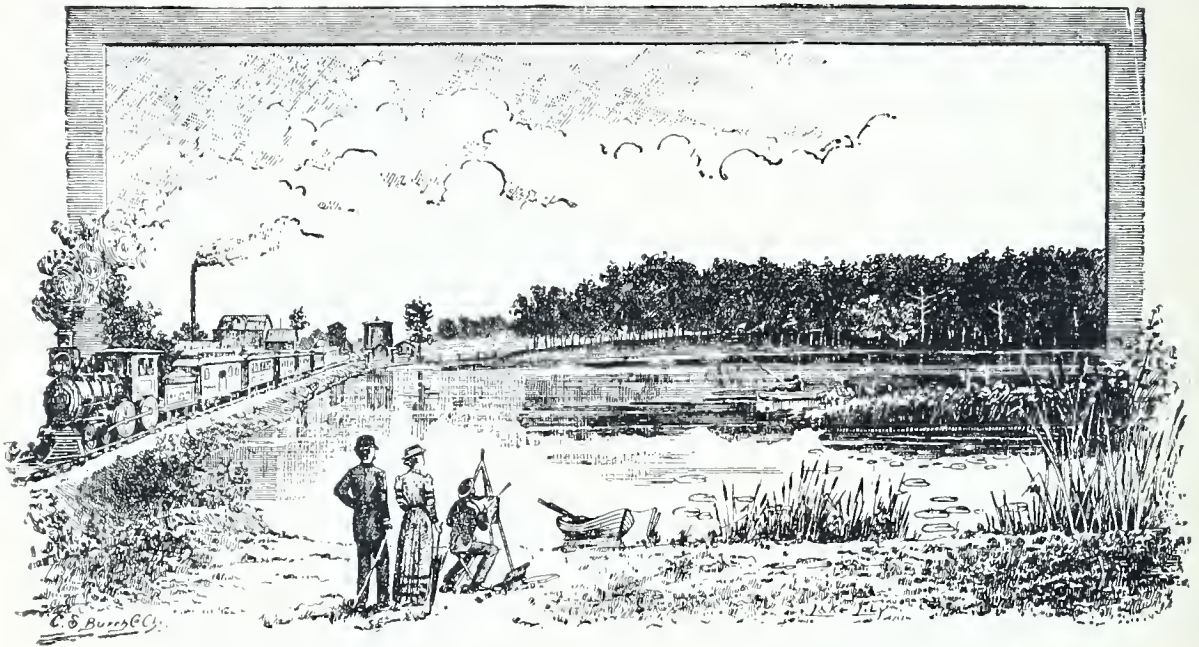
Could they do any more than had been done? To ask them to do more was almost like riding a free horse to death, but the *Rural World* wanted to see one thing more accomplished, and two or three years ago proposed that the Missouri State Horticultural Society make, in St. Louis, a show of Missouri fruit such as had never before been seen in the history of the world. Such an undertaking involved an inconceivable amount of labor and the outlay of considerable money, but the officers of the Society knew that the purpose could be accomplished if sufficient funds were to be had, and it was not until that fall this the effort could be made.

Early in the summer, arrangements were made with the management of the St. Louis Exposition to make the fruit show in connection with the Exposition, which opened Sept. 5 and continued forty days. One of the finest rooms in the building was secured and the directors of the Exposition assisted the society in fitting it up for the show.

Then began the work of collecting the fruit. The officers and members of the state society, the local societies, individuals and the press took hold of the enterprise and the result was the grandest show of apples both in number of plates and quality of fruit, that has ever been gotten together. Thirty-eight counties of the state had fruit on exhibition, the entire collection comprising over 3,000 plates, and pronounced by experts of a quality never before seen.

The show surpassed in extent and quality even the most sanguine expectations of its promoters, and to the hundreds of thousands of visitors from this and other states it was a wonderful revelation.

To collect this fruit and place it on the table, keep it in good order for forty days, replacing decaying specimens every few days, was a task that cannot be appreciated by the uninitiated, but those who gave their time and labor, and contributed to its success, believe that the state will be amply remunerated for all of the outlay in the impetus it will give to fruit growing and in the elevation of her reputation. How these men are to be paid for their services, is another question, but it is to be hoped that the people of the great State of Missouri will appreciate their labors in her behalf enough to ask the next legislature to place funds at the disposal of the Missouri Horticultural Society, to enable its officers to carry out such enterprises as this, without their being too great a burden. —*Coleman's Rural World*.



LAKE LILY, MOUNTAIN GROVE, MO., ON THE MEMPHIS ROUTE.

SOUTH MISSOURI.

ITS BEAUTIES, ITS ADVANTAGES, ITS PROSPECTS.

G. W. HOPKINS, OF SPRINGFIELD.

Address before the Missouri Valley Horticultural Society:

Having furnished you a paper last year on the future prospects of this part of Missouri, and promised to continue the subject at some future time, I will now endeavor to fulfill that promise.

Taking advantage of the occasion of the meeting of the State Horticultural Society at West Plains, Mo., I embarked at Springfield on the morning of June 7th, and after a few hour's ride over the Memphis railroad arrived at the flourishing little city.

On the route we passed several nice towns, among which were Cedar Gap, Mountain Grove and Willow Springs. At all of these places are found saw mills and huge piles of lumber, the product of the pine forests of the surrounding country.

At Willow Springs are found evidence of prosperity. New houses are being erected, real estate is booming, and everything shows an air of business. It is from here the Current River railroad is being built, which penetrates the finest belt of pine timber in the state. This road, when completed, will certainly be an important factor in cheapening the price of lumber.

Of the beautiful city of West Plains, and the hospitality of its citizens to the members of the Horticultural Society, it is not necessary for me to speak. Others have exhausted the subject, and I simply endorse all they have said. The moment I entered the court-house and saw the beautiful

floral decorations, I knew we were among a refined and cultured people, which opinion was more strongly confirmed the longer we stayed. By this trip I have got rid of an idea I have long entertained in regard to the people of South Missouri and Arkansas.

In passing through this country we notice a luxuriant growth of wild bunch grass, similar to that found in Colorado and New Mexico. This grass is very nutritious. It dries up in the fall, and for winter pasture is equal to the best of hay.

Why cannot this land be utilized for stock raising? Why is it that men continue to battle with the polar climate of Wyoming and Montana, where 50 per cent. of their cattle freeze and starve to death in winter—while here is a country where there is scarcely any winter and where cattle will do well without feed almost the entire year?

We believe that in time this will become a great pastoral country, and stock raising one of its prominent and profitable lines of business.

The formation of South Missouri is wonderful to contemplate. It has every evidence from the fossil remains and shell formation found in the rocks, of having one time been the bottom of the ocean, which, ages ago, was thrown up by some mighty upheaval in nature.

We cannot see why citizens of Missouri and adjoining states will spend thousands of dollars annually in visiting the mountain gorges of Colorado, in climbing the Alpine heights of Switzerland, in basking in the sunny smiles of fair Italy and other famous resorts of Continental Europe, while here within a day's journey of their own homes can be found some of the most attractive scenery in the world.

Here can be found fossil remains, and petrified specimens of everything that grows upon the earth or abounds in the depths of the mighty ocean. Here is found grand old caverns that rival in beauty and proportion the famous Mammoth Cave of Kentucky. And last, but not least, it is here that we find the most wonderful spring in the world.

In California and Southern Utah there are several streams which suddenly sink and are lost forever to the sight of man; but history gives no account of such a tremendous body of water that wells up from the bowels of the earth in the shape of a spring. Could this body of water be followed in its subterranean wanderings through mother earth it might inform us of some great curiosities and hidden treasures, that possibly may never be revealed to the eye of man.

Who can say but that Southern Missouri may some day be famous as a pleasure resort?

I have not yet spoken of the most important industry that in the future will engage the attention of a large portion of the citizens of South Missouri. I refer to fruit growing and will only touch the subject incidentally, as in a former paper I had expressed my views.

And now, while writing at my home, near the most beautiful city in all the grand old State of Missouri, in imagination I wander down the Ozark range, way into old Arkansas and picture out, (horticulturally speaking) one of the grandest empires the world has ever seen.

An empire which is destined to supply future generations of a great portion of the country with the choicest products of this favored land.

Situated in the center of this empire, rising in majestic proportions like the pyramids of old Egypt, we find that wonder of modern time, the Olden fruit farm.

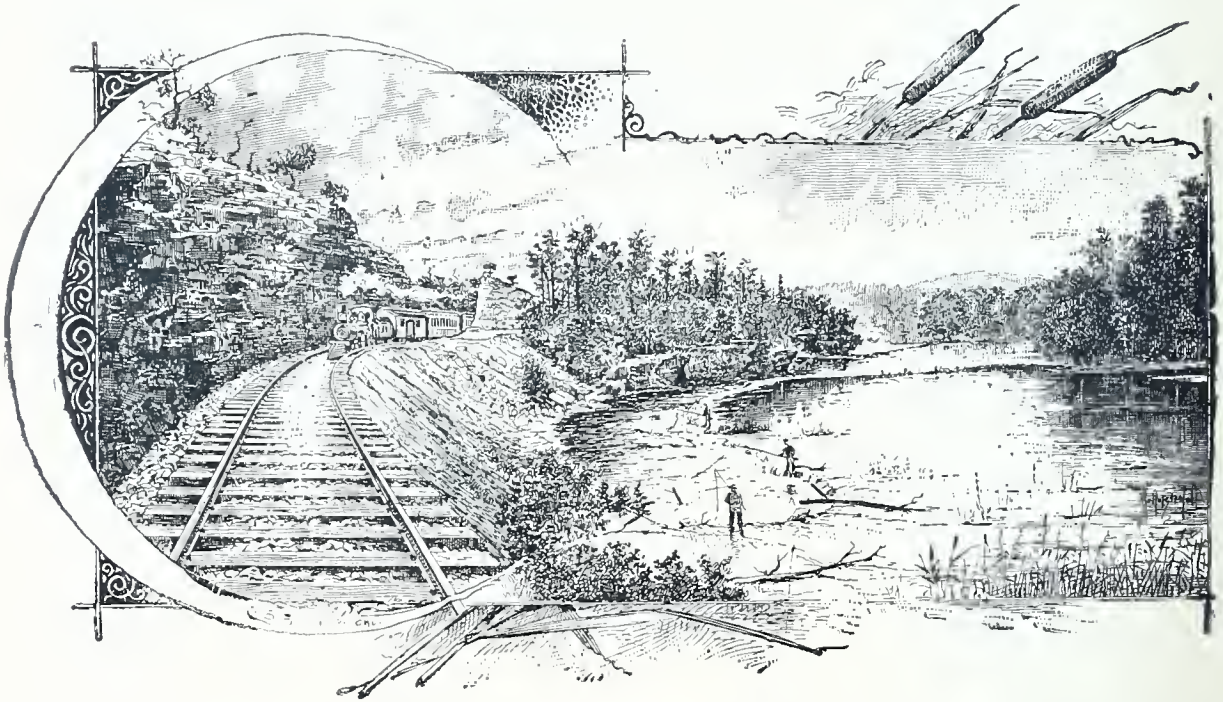
We confess before visiting this farm to some misgivings as to the final result. But now we believe it will be a success.

It will not only be a success, but will stand as a nucleus around which will spring up similar industries, until the whole surrounding country will appear as one grand orchard.

It may be asked, what shall be done with all this fruit?

We answer, sell all you can, dry, preserve, can and jelly the rest. Why not supply this whole western country with canned goods, instead of shipping from Maryland and other points in the east? The starting of such factories might drive from the market the vile stuff with which the country is flooded, that which, containing not a particle of fruit, is sold as preserves and jelly.

Success to the Olden fruit farm; we believe it is doing more to develop the resources of South Missouri and bringing more emigration than any other agency. We think there are sufficient brains, money and push in this company to carry it through all difficulties. And while they are laboring for the successful accomplishments of this enterprise, let them be cheered by the fact that they are engaged in one of the noblest callings ever practiced by Adam's race.



SPRING RIVER, ARK., ON THE MEMPHIS ROUTE.

PEACHES FAILING IN DELAWARE

Time was when the peach seemed a fruit that would grow almost anywhere in this country. Its limits gets more and more diminished as time goes on. A representative of the *Philadelphia Record*, a few weeks ago, had this to say of the famed Delaware region:

In ten years a Delaware peach will be as rare a thing in this market as it was thirty or more

years ago, when old Major Reybold shipped the first cargo of the fruit to Philadelphia from his farm near Delaware City. There are now no peaches grown about Delaware City; the peach belt has moved south on the Peninsula. In ten years peaches have become a precarious crop, and it looks now as if the greatest peach country in the world will in a decade be as bare of peach trees as it was when Reybold planted his first orchard. "The Yellows," the deadly enemy of the peach, has driven the orchards out of existence, and the average crop, which was a few years ago more than 3,000,000 baskets, is now less than 1,000,000.

Peaches have been for thirty years more plentiful and more luscious in the eastern cities of the United States than anywhere else in the world, and the prospective complete collapse of the growing of the fruit in the great peach belt so near this city, is a most interesting fact.

The peach crop of the Delaware and Maryland peninsula has for the past twenty years been worth more than \$2,000,000 a year to the little stretch known as "the peach country," extending thirty-five miles north and south of Dover, the capital of Delaware, and thirty miles east and west between the two bays. In the past twenty-two years, including 1888, the Delaware railway, which drains this peach country, has shipped 37,356,417 baskets of the fruit, and fully 15,000,000 baskets have found their way to market by water.

Thirty-five years ago peaches grew well, even around Chicago, and any point across the lake was good for a heavy crop half a dozen years after planting. Now the location in which it pays to grow them gets more and more circumscribed year by year.—*Prairie Farmer*.

Excursion of Missouri State Horticultural Society to the Olden Fruit Farm in 1887:

According to the programme the society was invited to a free ride from West Plains to the Olden fruit farm.

The Kansas City, Fort Scott & Memphis R. R. tendered the society a free ride to Olden and return, and at 9 A. M. the society and its many friends, about 600 strong, met at the depot and were quickly taken up to Olden, where every arrangement was made for their entertainment, the ladies and friends of West Plains furnishing an abundance of eatables, and the company the tables and arrangements at the farm.

The following account given by Judge Miller and the *Rural World* is taken from the *Rural* as very faithfully reporting the day.

EXCURSION TO OLDEN.

One day a picnic went to Olden, for which I believe the Fort Scott & Memphis Railroad gave passes. That was indeed a gala day.

On arriving at Olden I was amazed at the crowd. All went pleasantly and a splendid dinner to which all seemed to do justice, yet still there was left enough to feed many hungry persons. A curiosity, usual with me at gatherings, induced me to count the multitude, one other did the same, and our count tallied. Five hundred and fifty souls gathered there, where but a few years ago was nothing more or less than a wilderness. So much for railroads and enterprising men. There is started the

OLDEN FRUIT FARM

which, if I am not much mistaken, will in a few years have a name all over the civilized world. They have accomplished wonders, and deserve the well wishes of all who admire progress. This company will inspire an enthusiasm in the people of Howell county, that will add immensely to her wealth. From what I saw and learned, it is just the place for the peach which bears a crop fully five years out of seven, and some claim that the crop never misses entirely. I had the pleasure of a carriage ride through the principal orchards, and saw nothing amiss except in one instance,

where a crop was grown on a small tract that was detrimental to the trees. This they will avoid in the future.

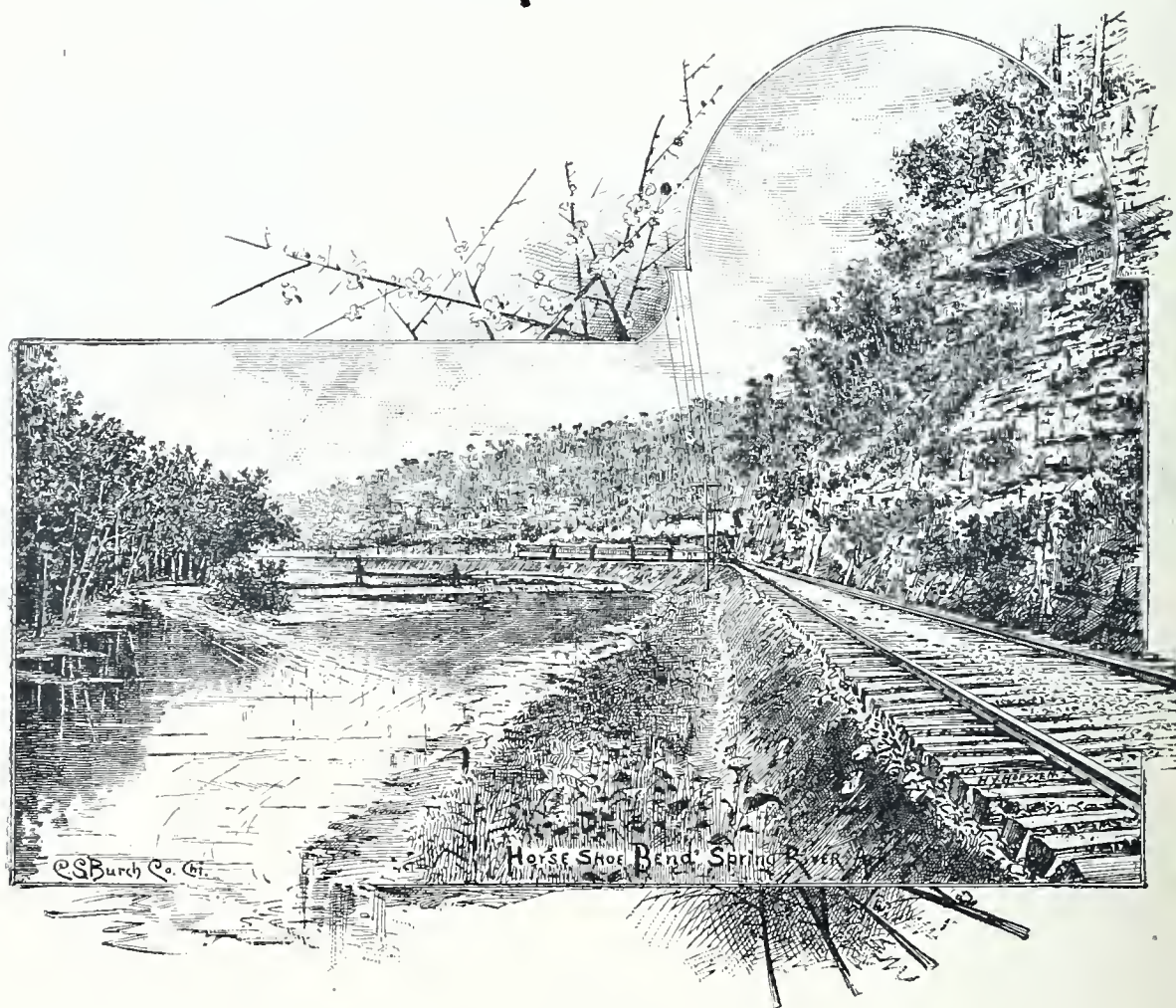
To give some idea of what they are doing, I will give a list of what they have done in the way of planting.

Peach trees first year, two years ago I believe, 20,000; second year, 10,000; third year, 10,000. Apple trees, first year, 3,000; second year, 5,000; third year, 2,000. Pear trees, 1,000. Raspberry plants; fifteen acres; blackberry plants, five acres.

All these have made a fair growth and look healthy. If ever Howell county awakes to her horticultural interests and resources (and they are immense), the Olden Fruit Company will deserve their thanks for it.

Howell county is nearly as large as the State of Delaware if we count out the swamps of the latter. I expect to live to hear the name of Howell county peaches as freely mentioned as we now do that of California oranges and grapes, and who knows but grapes may flourish there also. I am satisfied that Goethe, Triumph, Defiance, etc., will be hardy, and if free from rot there, there are fortunes in growing them.

Lands in Missouri are as cheap if not cheaper than any other State in the Union. Good farms of unsurpassed fertility can be bought a few miles



ALONG THE MEMPHIS ROUTE.

away from the cities and towns from \$15 to \$50 per acre, according to improvements. In South Missouri there are yet thousands of acres of government land subject to homestead and entry at \$1.25 per acre. Millions of acres of good fruit land can be bought from \$2 to \$5 per acre. Who would be without a home when one can be purchased so cheap?

There are many portions of South Missouri that have been comparatively unknown, until within the last few years, to the outside world. The impression prevailed abroad that this section of the country was nothing but a pile of rocks, and unfit for the habitation of man. But this delusion is fast passing away. Men of experience, capital, brains and pluck have bought lands, planted largely to fruit, struck a bonanza, and demonstrated beyond a doubt vast possibilities of South Missouri. Immigration is coming in by the thousands annually. Lands are being taken up rapidly, and the time is coming when cheap land in Missouri will be a thing of the past.

SOUTH MISSOURI AND NORTH ARKANSAS.

Would you know the home of the grapevine, the garden prepared for roses, the safe abiding place of the peach tree? Go, then, and see the land of fruit hills, where the valleys drop fatness, and the prairies are gems set in borders of trees; where the springs pour out rivers; the land of the possum and the persimmon, the sassafras and the mocking bird; the land of the tempered winters, of the sweetest spring times, of the summers shorn of their fierceness, of the long autumn glad with beauty and rich with fruitfulness.

Have you heard of the lead and the zinc of the old sea beds, how they have built up cities and brought wealth to that land of the southwest? On all our globe there is no grander place to build sweeter homes.

The poet must have been born in South Missouri, or North Arkansas, who wrote—

"Homes of our childhood, away in the wildwood,
Tenderly sweet is the name to me—
Sweet are your pleasures, rich are your treasures,
Beautiful homes 'mong evergreen trees."

FRUIT GROWING ON THE OZARK SLOPES.

In viewing the most successful commercial orchards of the Pacific Slope, we find them to be at an elevation corresponding very closely to this, viz: 1,200 to 1,600 feet above sea level.

At this altitude we find the most essential elements for developing, ripening and coloring to the highest perfection. This has been thoroughly and practically demonstrated by the most encouraging results. Much has been written, and truthfully so, about the adaptibility of this section as a Fruit-Growers' Paradise, for South Missouri will soon present a grand panorama of orchards, fruits and flowers.

In this article, however, I will confine my thoughts more particularly to the modes and methods of growing vines, trees and fruits.

First we will take up the strawberry, the first fruit of the season, coming at a time when our systems most need the appetizing aromatic acids of the fruit.

SELECTION OF SOIL.

Select a moderately level surface with good soil and gravelly porous subsoil. If not this kind of subsoil underdrain by tiling. It is very essen-

tial that the land has not become foul with weed seeds. Plow in fall and subsoil very deep by following the turning plow with subsoil plow. In winter or spring manure heavily with well rotted manure. Early in spring cultivate the dressing into the soil, and harrow well until the soil and manure are well mixed and pulverized.

PLANTING.

Lay off the rows with small shovel plow five feet apart, plant 18 inches apart in the rows, making about 5,720 plants to the acre. Cultivate with cultivator and hoe thoroughly.

The first two runners that start, draw on a line in opposite directions, in space between rows, and let them set a plant as near as possible to 18 inches from the parent plant. This will give about 16,940 plants to the acre and two feet space between rows. Now that the plants are established keep off all runners and do not let any more plants form. By this mode the plants will become large hills or crowns, and will not be exhausted by little, sickly, fruitless plants as seen in the matted row system.

If planting the Pistillate variety, every third row should be planted to some perfect blossoming variety as a fertilizer; but can we not find varieties that are perfect bloomers and profitable, that we may keep our varieties pure and require no mixing?

Keep up the cultivation until fall. After ground freezes cover over with clean straw, leaves or any material clear of weed seeds. In spring open up the hills, letting straw remain between the hills and rows. Sprinkle a handful of ashes, plaster, and dried blood mixed together over each hill, and in this latitude prepare for results about May 15th by having plenty of boxes and cream.

The next is the

RASPBERRY.

No kind of small fruit is so easily grown and so certain to fruit as the raspberry. I have never seen a failure of the raspberry in this section of Missouri, and why so few have this luscious fruit in abundance has always been a mystery to me.

Select the location and prepare soil as for strawberries. Lay off rows 8 feet apart, set plants 3 feet apart in row, making about 1,760 plants per acre. When plants become 18 inches high, pinch off top and let them branch out in tree form. Cultivate well, mulch hill with coarse manure. In winter or spring prune side shoots off to 4 inches, and continue good cultivation, for while the raspberry does well under moderate care, it is susceptible to kind treatment and will bring bountiful returns.

As to the varieties of the Black-cap we put the Hopkins at the head of the list.

BLACKBERRIES.

Same treatment and care as for raspberries. Varieties: Snider, Taylor and Ancient Britain.

PEACHES.

Under climatic affection and disease, peach culture has become neglected in the great regions of the fruit belt, and the territory in which the peach can be successfully raised has become narrowed down to a very small section. But here on the Southern slopes of the Ozarks we find the

home of the peach, where the tree will bear three crops in every five years; grow from three to six feet in one year, and live to be twenty years old; trees perfectly healthy and vigorous; no yellows, no leaf cure, no borers, but instead clean, smooth, healthy trees, loaded with bright, crimson cheek, red, white and yellow peaches, some measuring as high as 13 inches in circumference, and of the highest color and best of flavor.

In selecting a location for a peach orchard, select the highest ground with a light marl or gravelly soil. Plow and pulverize well; plant trees 16 feet apart, using one-year-old trees, trimmed up to a whip or all limbs cut off. Cultivate and prune each year on outside, or ends of branches, cutting off from one-half to two-thirds of each year's growth. Do this every year as long as tree lasts. Have trees to head close to ground, from one foot to eighteen inches. By this method the tree is much longer lived, renewing itself each year. The bearing wood is lower and distributed all over the tree and not subject to splitting and breaking by wind storms, and will bear up its load of fruit without injury to the tree.

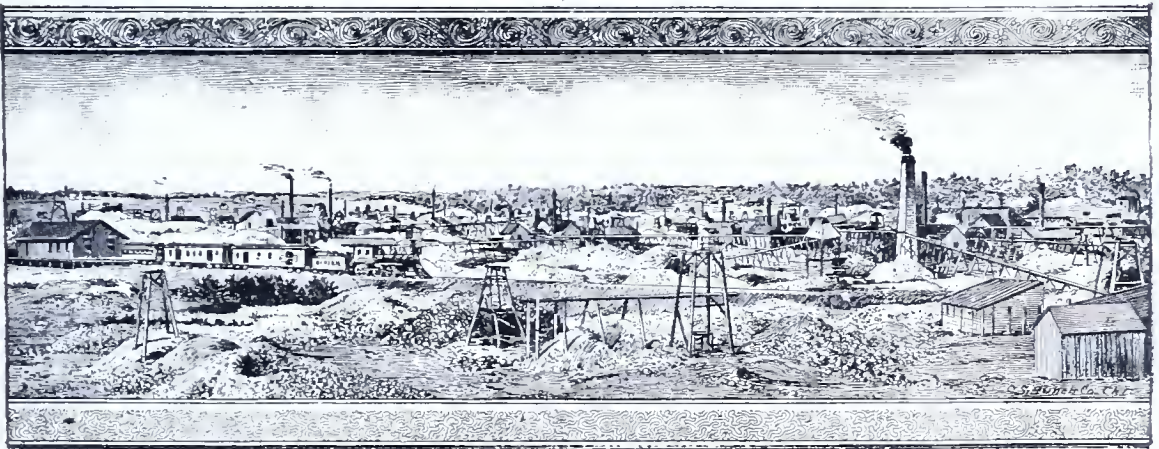
In selecting varieties we try to avoid the earliest sorts as we find them unprofitable, but select the varieties coming after them, with a perfect succession of ripening fruit until the latest, which runs through the summer season, continuing till October. This brings us up to the time that our winter apples will need our attention, which will carry us through until next strawberry season.

Thus we have a perfect succession of fruits in their season and nothing to conflict or interfere in the handling of each variety.

The yield per acre corresponds according to the care, culture, and labor bestowed upon each variety of fruit.

Yours respectfully,

W. G. GANO, Supt.

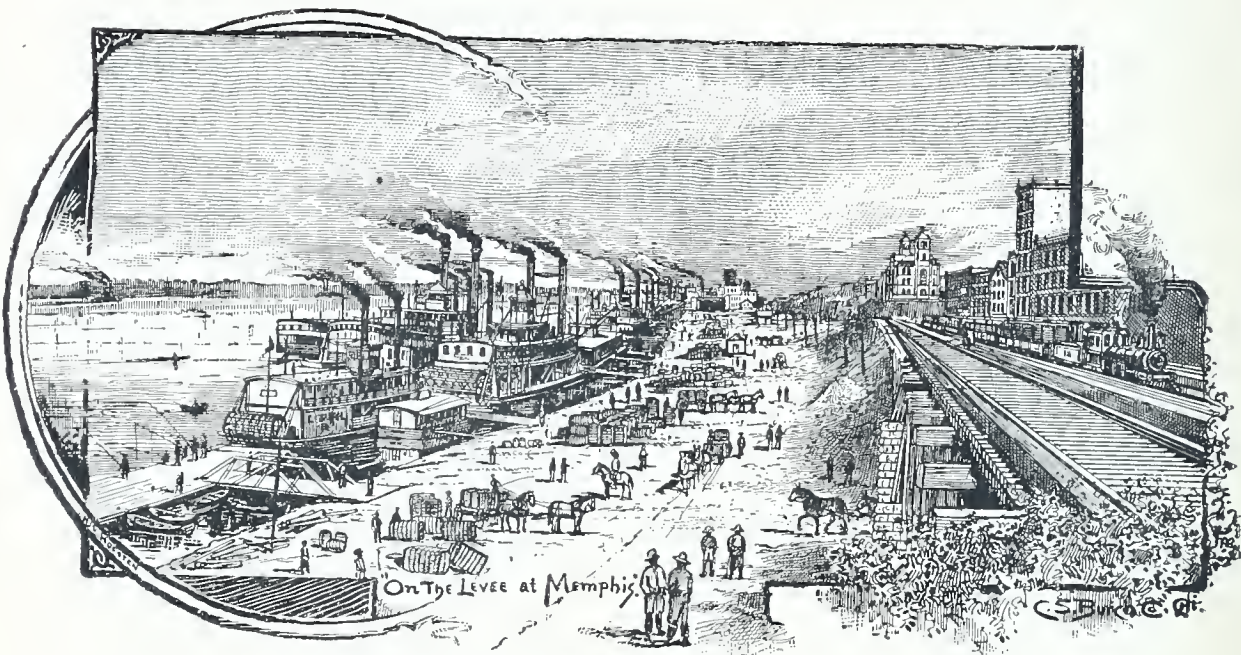


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